

college AND UNIVERSITY business

APRIL 1956

Presidency in Retrospect

The "Teleclass" at Stephens

Proper Handling of Paint

Parking Lot Control

They Eat in The Barn



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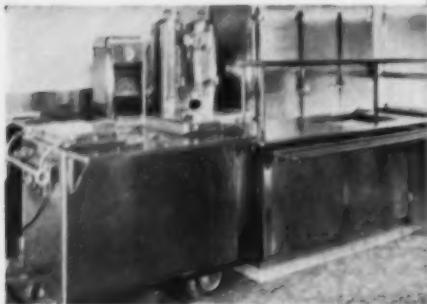
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award-winning
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FLOOR PANTRY—showing Blickman-Built food conveyor. Note stainless steel serving counter with round-corner bottom. Pantries have complete service facilities.

sanitary construction lowers maintenance costs

AT BAYLOR UNIVERSITY HOSPITAL, DALLAS, TEXAS



GENERAL VIEW OF MAIN KITCHEN — showing food conveyors lined up opposite cook's tables. When loaded, conveyors are wheeled to elevators and taken to individual floor pantries. Stainless steel cook's table typifies sanitary construction of all equipment, featuring round corners, rolled edges, seamless crevice-free surfaces. Note built-in bain marie.



CAFETERIA—close up of stainless steel serving counter. Round-corner bottom, seamless top, welded tray slides, elimination of horizontal trim—all promote cleanliness.



FUNCTIONAL DESIGN AIDS SANITATION in main dish pantry. Stainless steel clean dish table with built-in round-corner sink. Wall-mounting eliminates leg obstructions, facilitates cleaning. Welded tubular undershelf is suspended from dish table, leaving floor clear.

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Among the Authors



Henry M. Wriston

DR. HENRY M. WRISTON, formerly president of Brown University at Providence, R.I., in his article on page 23, shares the lessons learned over several decades of experience as a college and university president. From his years as head of Lawrence College in Wisconsin, his many years as chief executive of Brown, and his presidency of the Association of American Universities, he has distilled a statement of operating philosophy that is frank, humorous, mellow and sane.



W. E. Camp

W. E. CAMP, treasurer and business manager at Wells College, Aurora, N.Y., submits his views on the proper functioning of an institutional investment portfolio on page 27. He speaks from 12 years of experience in a private banking and trust company and from 18 years as treasurer of Kenyon College, these antedating his present position. Active in college administrative circles, he served at one time as

president of the Ohio Association of College and University Business Officers. When things are not too pressing, Mr. Camp turns to his hobbies of music and art. . . . DR. WILLIAM KENNETH CUMMING, member of the Stephens College staff, reports on page 28 a lively experience with closed-circuit television at this enterprising junior college. He has been working in the television field for several years and was formerly a producer-coordinator for Michigan State University's educational television station, WKAR-TV. He is author of the book, "This Is Educational Television," said to be one of the most comprehensive sources of information available on TV as it relates to education.



Martin E. Gormley Jr.

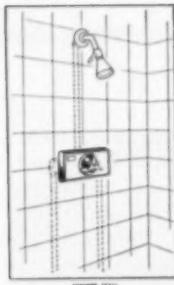
MARTIN E. GORMLEY Jr., assistant to the president of Sarah Lawrence College, Bronxville, N.Y., suggests on page 38 how a building can become more than a building. Mr. Gormley wrote the article in 1952 describing the Fine Arts Building at Sarah Lawrence; in this issue he tells how the building actually has worked out. Mr. Gormley has been active in fund raising and public relations work with the United Negro College Fund and with the office of university development at Yale. He went to Sarah Lawrence College in 1952. During World War II he served in Italy as a bombardier with the 15th Air Force. He used to have a private pilot's license but "flying got too expensive."



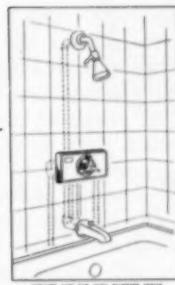
Harry W. Pearce

HARRY W. PEARCE, superintendent of buildings and grounds for the Chicago colleges and divisions of the University of Illinois, realistically faced the parking situation in the crowded area surrounding the professional schools and came up with the recommendation that automatic parking gates be installed. He describes the installation on page 46. Mr. Pearce has served in his present capacity for 21 years. Prior to that time he was associated with an architectural firm in Bloomington, Ill., for a year. Earlier he spent six months with an engineering firm in the Republic of Panama. As one might imagine, his hobbies are consistent with his work, being chiefly landscaping and gardening.

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QUESTIONS AND ANSWERS

Bookstore in College Union?

Question: Is it desirable to incorporate the college bookstore in the design of a college union building?—J.O., Ohio.

ANSWER NO. 1: Those familiar with the discussions and reports at the meetings of the Association of College Unions and with certain other studies made of bookstores in unions know that there is a body of opinion unfavorable toward including bookstores within the union and that there are a number of risks involved.

The prime difficulties are (1) that under limited construction budgets a bookstore frequently displaces important and valuable social-recreational facilities; (2) that it is quite expensive and uneconomical to build new union space for what amounts to a large amount of "dead" storage for reserve books and supplies and a few peak selling periods if other existing space can be used; (3) that the future legitimate expansion of the store is usually at the expense of other needed union space, and (4) that the bookstore, especially where it has crowded out recreational space and is a dominant unit, gives a commercial aspect to a center intended as a "living room," and, where indifferently managed, is a lightning rod that attracts constant student complaints that are transferred to the union building as a whole, regardless of division of management.

In addition, my own observation of union planning across the country is that no other single factor creates so many headaches in arriving at a good, workable building scheme as the bookstore requirements (service road and delivery dock complications, competition for high premium central space, site inadequacies, problems of independent operation and of allowing for future expansion, and so forth).

At times, however, these considerations become academic because the financing of the new union building relies heavily upon bookstore operating income (though many colleges have met this problem by retaining the bookstore in a separate location and using store proceeds for union financing). Also, there sometimes is simply no other space solution for the bookstore,

and union surveys often show that students want the bookstore in the union, as a matter of convenience.

The crucial matter, it seems to me (granted a favorable student attitude toward the bookstore), is whether or not the college is committed to providing essential social and recreational facilities in the union—the central purpose of a union—in addition to whatever the bookstore space requirements may be, so that the resulting "union" is not primarily a bookstore and snack bar with a few miscellaneous recreational appendages, but a social center truly adequate for the community life of the college.—PORTER BUTTS, *union director, University of Wisconsin*.

ANSWER NO. 2: If the student union is situated in a convenient traffic location on campus, then it can be considered as a location for the college store. If union occupancy means an out-of-the-way, inadequate location, then it is far better to find other facilities for the store's use. It is not necessary that the store be in the union.

One important consideration is the over-all responsibility of the college store management; it should be under the direct administration of the business office since union directors seldom have had any experience that qualifies them to supervise a retail enterprise.

College store retailing is somewhat foreign to union philosophy, and in many cases the store ends up in the union because it is the only space available and because it offers revenue potentials for the enterprise. In too

many cases the store in the union finds that it is handicapped for space and funds to expand because of the demands on its profits to support the union.—RUSSELL REYNOLDS, *general manager, National Association of College Stores*.

Differentiating Costs

Question: Should the expense of administration and of maintenance and operation of the physical plant be allocated to instructional programs? If so, on what basis?—L.N., Ohio.

ANSWER: At an educational institution, only one product is produced—students. This is the primary aim of the educational institution, and there is not the need for differentiating between the costs of producing these individual units that there is in a manufacturing concern.

The purpose of university and college accounting is to record and report the purposes for which funds are allotted and to supply management with accounting data that will facilitate control. It is my opinion that the charging of expenses directly to the department using the funds enables easier and better control than if the identity of the expenses is confused by dispersion through allocation to the many departments.

The proper allocation of indirect expenses requires an adequate basis. What basis could be used? There are several bases that could be used, such as square-foot-hours of space used by the department or student-credit-hour load of the department. Each basis might be adequate for allocating one or more classifications of expense, but no one basis would be adequate for all allocation. With the use of these bases, a total cost for instructional programs could be determined. But would it be true, factual total cost? In my opinion it would not, because the bases used will give an arbitrary allocation.

In conclusion, any benefits that could be acquired through allocation of the indirect expenses are negligible compared to the time and effort involved in the allocation and the distribution of such expenses.—ERNEST M. CONRAD, *assistant controller, University of Washington*.

If you have a question on business or departmental administration that you would like to have answered, send your query to COLLEGE and UNIVERSITY BUSINESS, 919 North Michigan Avenue, Chicago 11, Ill. Questions will be forwarded to leaders in appropriate college and university fields for authoritative replies. Answers will be published in forthcoming issues. No answers will be handled through correspondence.

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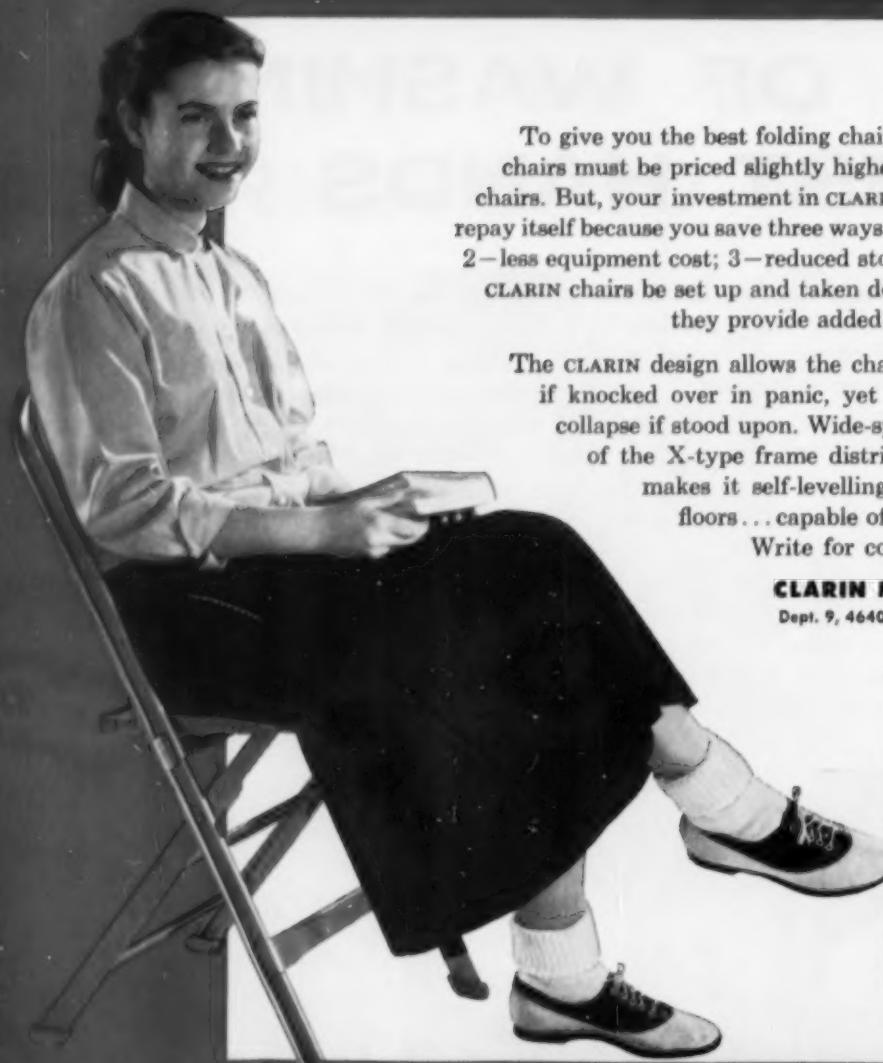


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49 TUBULAR CHAIRS



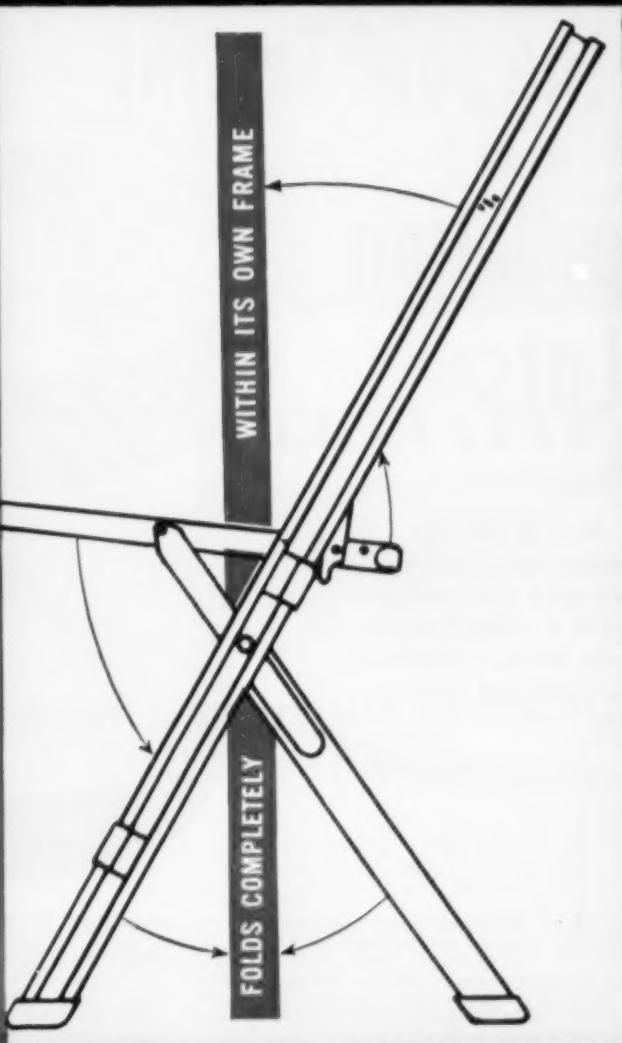
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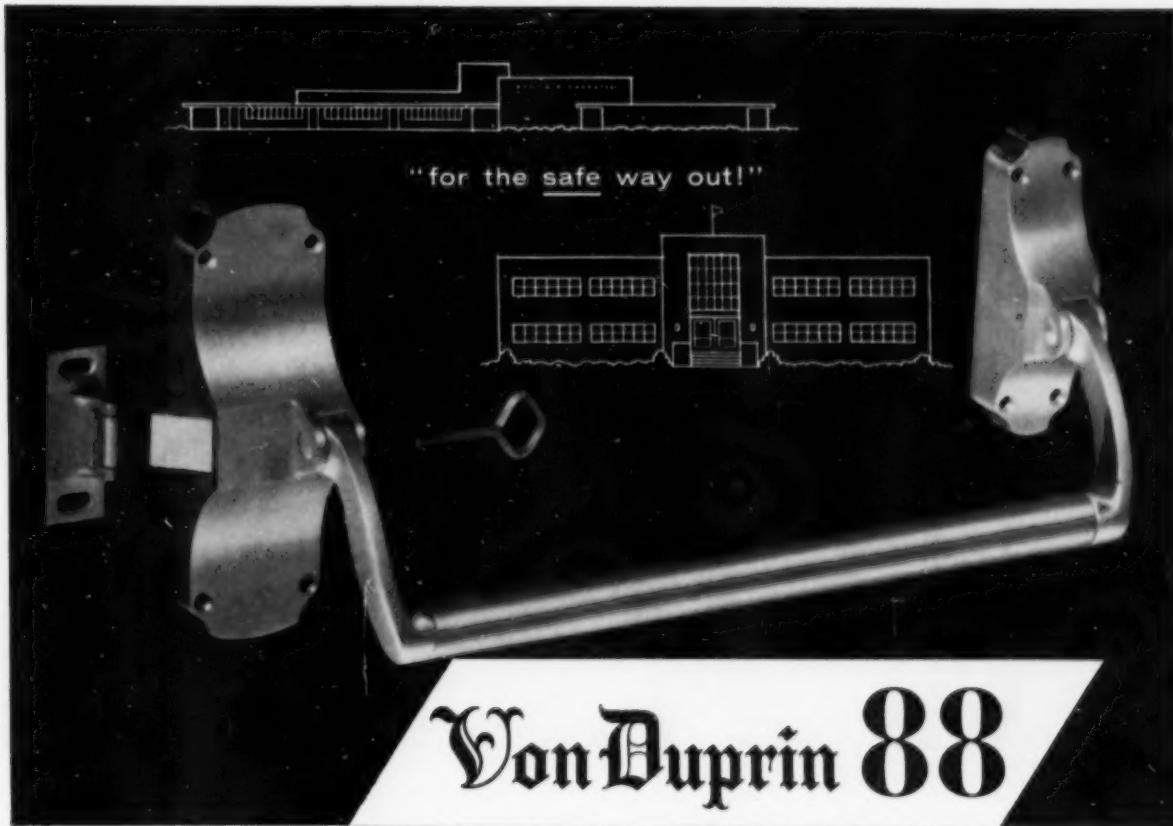


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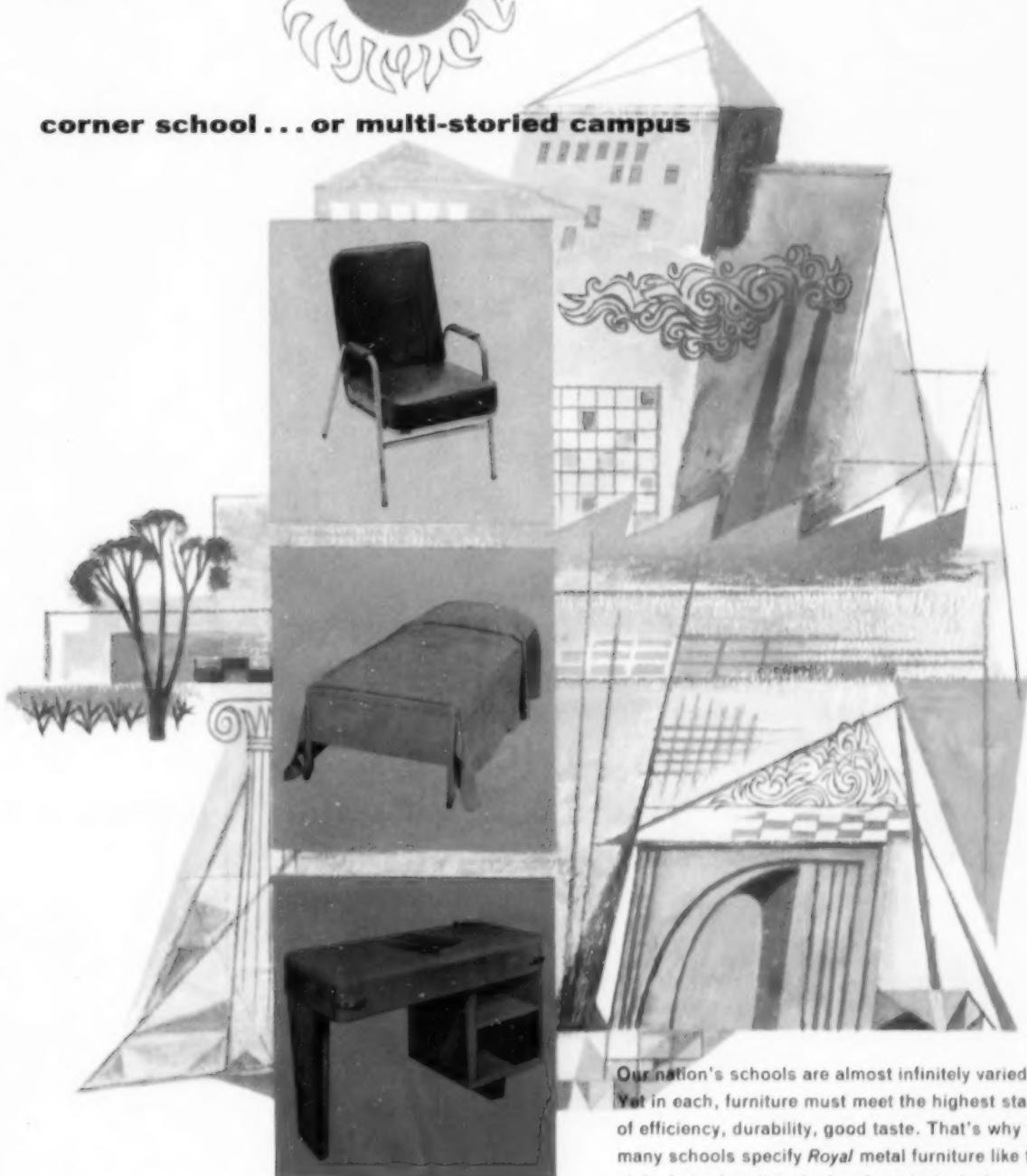
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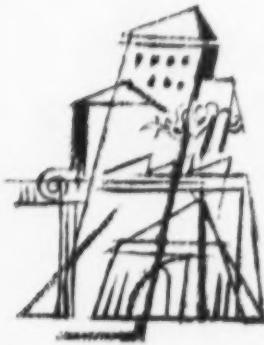
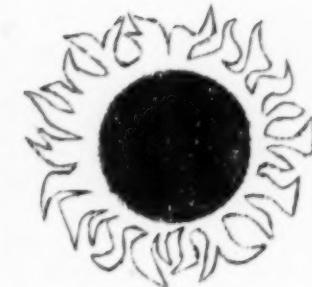
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a



b



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c



d

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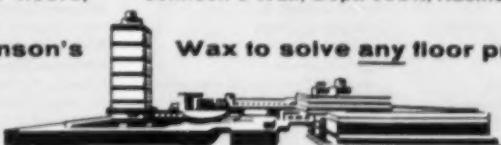
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SLATER MANAGER AT CLARKSON—Slater manager (left) confers with Mr. F. Gordon Lindsey, Clarkson Director of Student Services on the food service operation.



SLATER EXECUTIVE DIETITIAN studies and checks menus submitted by Slater Manager at Clarkson. Slater draws on 29 years' experience in college and university food service management.



SPECIAL FOOD SERVICES ALSO PROVIDED—Slater serves a dinner party for a group of industrialists visiting Clarkson's Mechanical Engineering Department.



SPECIAL EVENTS PART OF SERVICE—Clarkson Students' Wives tea is another example of special events handled by Slater for its clients.



Dining Hall—MEN'S RESIDENCE . . . Clarkson College of Technology

Growth of the Food Service at Clarkson College of Technology

In September, 1953, Clarkson College of Technology, Potsdam, New York, initiated its new student and faculty food service. Slater Food Service Management was retained to operate the 240-seat cafeteria, as well as the faculty dining room plus an 80-seat snack bar in the college's student union—Lewis House.

In setting up this initial food service, Slater prepared a labor analysis, set up wage schedules, provided personnel, planned menus and established all operating procedures. Slater also assisted in the design of the food service facilities.

The following year, 1954, this service

was expanded with the addition of a new 250-seat cafeteria in Men's Residence. Work is currently under way to open another 250-seat cafeteria in Hill Residence by Fall of 1957.

College enrollment at Clarkson has grown greatly during this period, with Slater Food Service Management keeping pace. The food service has increased in scope by almost 60% . . . with approximately 600 students and faculty members being served daily.

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Clarkson College of Technology	Ithaca College	Pennsylvania Military College	New York City and Richmond, Va.
Community College	Le Moyne College	Pratt Institute	University of Detroit
Dickinson College	Longwood College	Princeton Theological Seminary	University of South Carolina
The Episcopal Seminary	Loyola College	Roanoke College	Upsala College
Fairleigh Dickinson College	Lutheran Theological Seminary	St. John's College	Western College for Women
	Memphis State College	St. Joseph's College	Westminster Choir College
	Middle Tennessee State College		

Operation Expansion!

ALFRED P. SLOAN Jr.

Chairman, General Motors Corporation



I FEEL THAT THE EDUCATIONAL INDUSTRY—if I may call it an industry—is not planning as aggressively as it should. It is not looking forward to the next 10 years to meet the great expansion of the market that it must meet unless we are going to reduce the general level of education in this country.

Why do I think so? Well, in the first place, you are probably familiar with the announcement that General Motors made last year on scholarships. General Motors goes into matters thoroughly before it takes a position. That scholarship plan was studied for a whole year by competent people. Several hundred educational institutions of higher learning were studied very carefully. In my mind, it is clear that those particular educational institutions, which I think probably are a cross section of the whole, are not planning to measure up to the responsibility of the demands of higher education as we're going to see them in the next 10 years.

I am operating a foundation. We have a scholarship program that involves 200 scholarships in technological institutions and in liberal arts and science institutions. Thus I have had the privilege of meeting the presidents of 11 educational institutions. Their ideas seem to be something like this: "Well, now we have an enrollment of 1200 but two years from now we're going to get it down to 1000." That's exactly contrary to what business does. Business is looking to expansion and to development. It seems to me that the educational industry, if I may refer to it as such, is not planning big enough.

If we are going to have expansion—and I am recommending to you educators that you adopt what we might call "Operation Expansion"—we must get ways and means to finance it. Of course, in a business enterprise like General Motors, we have a profit position, and we can go out and get our shareholders to put up more money.

You educators do not have that situation. But at the same time you have a selling problem, and I wonder whether the educational industry is measuring up to its responsibility in selling its programs to business.

From an address presented at the Council for Financial Aid to Education, Inc., Barnard College Conference.

How should education go about it? I think every college should set up an activity headed by the president. It should comprise one or two members of the board of trustees, those who have the best opportunity to meet with people who are prepared to help finance the institution. They should use their ingenuity and in every way try to develop ideas that will appeal to prospective donors. Your needs should be divided into two categories: one in the order of magnitude and one in the order of necessity. You should try in every way to develop as many different appeals as can be presented to business. Remember that businessmen deal with specific things; they don't deal in generalities.

In the educational approach to business, avoid trying to do too much at one time. It is a new thing for business to support education. Get your foot in the door; don't try to get in all the way the first time, and don't try to get long commitments. A businessman doesn't like to make them. He may come to that; he will come to that.

Be specific rather than talk about unrestricted funds. Unrestricted funds are wonderful. I appreciate that educators would rather have a sum of money and do with it as they see fit. But asking for it isn't good psychology. People who give money like to have the money related to some specific thing.

Whatever money you get, spend it. Spend it in 10 years. Let's not try to protect future generations. That's paternalistic. Let the future generations take care of themselves. The need for higher education is so great, the need for funds to finance it is so great, that we can't afford to put our money out at 3 or 4 per cent. Let's spend it within 10 years.

Let me say this in terms of generalities about corporate giving. I've been connected with American industry for nearly all the first half of this century. I've seen great changes take place. One of the great changes is the evolution of civic responsibility on the part of the management of American industry.

The men who manage the great industries of today are more and more accepting a responsibility to society, recognizing that they have a tremendously valuable franchise. They recognize they have a responsibility to protect that franchise.

LOOKING FORWARD

The Art of Administration

MANY YEARS OF EXPERIENCE AS A COLLEGE AND UNIVERSITY administrator are reflected in the pocket-sized book by Dr. A. J. Brumbaugh titled "Problems in College Administration."

Recently published by the Board of Education of the Methodist Church at Nashville, Tenn., the book is a collection of three lectures the author presented before the eleventh annual Institute on Higher Education held in Nashville last July. As mentioned in the foreword, "The problems discussed here are the perennial issues of educational administration. That they are treated with insight and imagination every college administrator will recognize at once."

Now director of studies for the Southern Regional Education Board, Dr. Brumbaugh was formerly vice president of the American Council on Education, twice served as a college president, and for a considerable time was secretary of the North Central Association of Colleges and Secondary Schools.

The 50 page book touches on basic principles of administration, problems that involve boards of trustees, problems within the sphere of the college president, problems of faculty relationships, and problems related to student life and activities. The literary style is informal; the examples of good and bad administration are pertinent and cogent.

Advance Planning

THIS YEAR COLLEGE AND UNIVERSITY ENROLLMENTS broke all previous records, despite the fact that the students are drawn from the period of low birth rate in the Thirties. What the enrollment figures will be five years from now is giving some university officials the jitters.

A recent study by Ernest V. Hollis and S. V. Martorana of the U.S. Office of Education reveals that advance planning is a pretty spotty operation. Thirty-one states and Alaska have authorized studies of higher education since 1950; 17 states have conducted no studies in the last six years. Most of the studies under way do not appear to be comprehensive enough. According to Messrs. Hollis and Martorana, only six states—California, Florida, Iowa, Louisiana, New Mexico and New York—appear to be developing a comprehensive course of action to meet increasing enrollments.

Higher education, public and private, must press immediately for statewide consideration and planning

in regard to financing, scholarships and plant expansion. Less and less time is available for calm, analytical and intelligent consideration of the factors to be considered in providing facilities, funds and faculty for colleges.

The taxpayer and the private donor will help pick up the tab if they are convinced that the need is real and the product is good. Sound planning at this time will pay tremendous dividends in less than a decade; to procrastinate is to court disaster.

Political Football

STATE SUPPORTED COLLEGES AND UNIVERSITIES ARE headed for trouble. Within the past decade, more and more institutions dependent on the appropriations of state legislatures are finding their autonomy seriously threatened. With little understanding of the purpose and function of higher education, legislators are moving in to take over and direct the administrative processes of state colleges and universities. The "economy bloc" in these legislatures feels that higher education can be financed for less. The bargain-basement approach may shortchange the taxpayer in the quality of the product being offered him. There are actually instances in which a legislative committee has usurped the power of approving faculty appointments, of reviewing all purchase vouchers, and of determining curriculum content.

The most satisfactory method of administering public higher education appears to be that arrangement through which a board of regents or board of trustees holds legislative charter to administer higher education within the state. Such a board is likely to be independent of political control and legislative whims. This condition exists today in only 23 institutions, chiefly universities and land-grant colleges.

In commenting on this problem, Dr. J. Paul Leonard, president of San Francisco State College, observes: "The encroachments of authority upon governing boards are real and are multiplying. They have been spreading from state to state and have been pressed upon the institutions without any careful consideration by state government or without any adequate evaluation of the effect of the policy. They have been established, more or less, by encroachment, either with acquiescence of board members and the public or with little or no effective resistance. . . . We have, therefore, come to the time when the condition has gone so far that lay boards may not be able to regain controls."



"Good clean fun, a rich deep-down joy,
some frustration, many disappointments,
and an occasional heartbreak"—that's

The College Presidency in Retrospect

HENRY M. WRISTON

President Emeritus, Brown University, and
Executive Director, The American Assembly

Don't let that tyrant, the mail, drain
off the zest of being an administrator.

A FAMOUS BANKER SAID: "UNLESS I guard against it every moment I find that I am not running the bank; the bank is running me." Certainly any college president very long in the business knows how easy it is to let the college run him.

When I realized that it was happening to me, I sought to find out how and why. The first culprit was the mail. I would approach the office with my mind full of things I wanted to do. On the top of the pile of mail would be one of those letters with what might be called a standard opening: "Sir, you cur." This affected my blood pressure and drove every constructive thought from my head.

The next letter in the pile might ask a sensible question, but the reply would require a review of earlier correspondence—and maybe some vote of the board—to be helpful and honest. That took time and further postponed getting at what had once been on my mind, but which was now fast fading.

You know what was in the rest of the pile: an invitation to give an

Abstracted from an address before the Institute for College and University Administrators, Harvard University, 1955. The address was published in the Association of American Colleges Bulletin 41:519 (December) 1955.

inspirational address (fighting words with me) at the opening and dedication of a "new and enlarged" parking garage; a series of perfectly routine letters that anyone could answer, or to which no answer would be the most appropriate response.

Almost without fail the mail contained at least one questionnaire: the salaries of assistants in the several departments; the range of salaries of full professors with an explanation of spread and intermediate amounts; to what did I attribute spring fever and the urge to break windows. Any questionnaire, even a good one (a contradiction in terms), would send my blood pressure up a few more notches and bad ones (a tautology) further.

Before the pile was finished the appointments began and my idea was at least sleeping and probably dead. My first rule for running the college, instead of being run by it, came to be this: Never look at the mail until it has been sorted, with the relevant previous material assembled and attached; all routine replies should be drafted by someone else; inquiries which other officers could answer as well or better ought to be referred to the appropriate person; if courtesy required my signature, the replies

could at least be drafted by the man (or woman) who was able to do it most effectively.

This solution provided some freedom from the tyrannous character of the mail. I could do what was in my mind to do when I came to the office, and do it while it was still fresh and could be done zestfully. At least I was not taking dictation as to my activities from every Tom, Dick and Harry in or out of the educational world.

The second insidious way in which the college can run the president, and to the damage of both, is by giving him no time to read or write. There are always more things to be done than any man can do. Reading can be put off; it does not seem so urgent or immediate as some other things. But the plain fact is that reading is a professional matter; it is an official duty. Therefore it is not marginal, not something to go to sleep on. If it does not have a very high priority, it does not get done. And the longer it does not get done, the lower its priority becomes. By and by reading is abandoned, though the pretense is preserved.

Meanwhile, the making of speeches goes on, and on, and on. But a mind

not refilled is soon emptied. Then the clichés take over. Every speech tends to rely upon a good story (all too often it is "the" good story), the gracious word, the technic of filling time, saying less and less.

Any speaker who pretends he does not repeat is fooling no one—unless he fools himself, the easiest mark after all. When you reach into the barrel, be sure to keep a record of your sin. It will save the embarrassment of repeating the same thing in the same place too often. And beware the extemporaneous: If you are driven to it, take a tape recording and have it typed. Then read it and shudder, and sin no more!

The only suggestion I have to offer for finding the time essential for reading and writing is an extra office, where you can go and be "unavailable." It should have a separate secretary, a combination of bibliographer, editor, critic and stenographer, who keeps a close record of what you have said, when and where, which speeches are new and which patchwork—I almost said crazy-quilt—made up of frag-

ments of worn-out verbal garments. And ideas become tatterdemalion more quickly than rayon.

If you dictate speeches, revise and revise again. It is astonishing how verbiage can shrink through revision and how the cogency of an argument is enhanced when the prose is lean, without adipose adjectives and adverbs to soften and conceal its bony structure, if any.

This is a hard gospel, and the labor is fatiguing. There is no phase of administrative activity where careful preparation and thoughtful concentration pay higher dividends than in the inevitable and all too frequent speech making.

BUILDINGS AND REAL ESTATE

The third factor that tends to make the college run the president appears when he tries to do everything that an administrator ought to do. The head of a university is not only, as Marjorie Nicholson tersely expressed it, "the recipient of the ultimate buck"; he is responsible for an extremely wide range of activities—so wide, indeed, that if he tries to learn them all at once, much less do them all at once, he is certain to bog down. In fact, it takes several decades to learn his job in all its aspects. I shall retire from the college presidency with many lessons unlearned.

For example, it has been my misfortune to spend 30 years in the real estate business. Both institutions I have served were located in the heart of a community and in one of the better, if not the best, residential sections. The logic of institutional growth was far too obvious and the attempt to acquire necessary property sometimes seemed like submitting to a holdup. Learning how to cope with this problem is a full-time job in itself. It requires a deviousness which, if applied to other phases of his work, would justify the general reputation that is given to college presidents of being somewhat less than candid. Of course many college presidents do not have to face any such real estate operations. Those in that happy circumstance should utter a prayer of thanksgiving, remembering, however, that they can easily become mired in some other phase of essential activity.

A related aspect of a college president's work which must be learned is architecture. In this field he must not only be an expert in esthetics (that is the simplest phase); he must



Find an extra office where you can be "unavailable." There read, write.

approve the design of buildings which please the modernist and also the traditionalist; but he must never compromise between the two, for that is unsatisfactory to both.

Even more difficult is the care one must take in the design of buildings. An architect can seldom give you something good you do not know you want. He is almost certain to give you something you do not want unless you have a very precise knowledge of what you desire. What you want is not to be determined by inspiration but by hard study and analysis. Only so can you bring your requirements within reach of your financing, while sacrificing nothing in the functioning of the building. The perfect classroom has yet to be designed, but unless it is designed within your administration you will be held accountable.

There may be a college president somewhere who does not need any buildings. If so, he is in a position to pray the prayer of the Pharisee, thanking God "that I am not as other men." But if he exalts himself in this matter, he will be abased in some other.

HIRING TEACHERS

A college president must not only buy land and building materials, he must be continuously strengthening the faculty. In reaching a decision, how much attention should he pay to character, to personality, and to scholarship in a prospective teacher? There are sharp differences of opinion about all these matters.

Scholarship is a primary essential of the teacher.

As for character, one should do his best to look to integrity but should not confuse religious irregularity or personal habits (like smoking 30 years ago) with character. As for personality, one must look to the long pull and not to the short. I have known the glib and the genial, the apple-polisher and the careerist to make a strong first impression at the time of the appointment, which turned terribly sour three years later. And the man whose silence and apparent impassivity scared me most turned out to be one of the greatest young teachers I ever knew. When you are forming a responsible judgment, either on your own initiative or in dealing with the recommendation from a department, you are on slippery ground. If you do not make mistakes you are a genius. It will be a real test of your own character whether you are ready to face the

consequences involved in correcting your mistakes.

The precepts used in deciding what candidates to take, the conservatism or liberality or rashness with which promises are made are all matters of greatest difficulty. Looking back on my own experience, the place where I now know that I told the most lies was during the early years in explaining to professors whom I wanted to appoint what I hoped to do for them. Because of an ancient hallucination that college presidents are omnipotent, many of them believed I could and would do as I hoped to do. Taking my visions for promises, they accepted the appointment, not only to be disillusioned by what they experienced; they were also disheartened as to my character.

Bitter experience led to a practice which has since avoided many misunderstandings. No matter how simple the conference, make a record of it. It is best to dictate a summary in the presence of the man to whom you have been talking and give him a free hand to make corrections. In any event, the record should be made promptly. If the applicant has not heard it dictated, send him two copies, asking for the return of one either corrected or initialed. Whenever I have failed to observe this routine with religious fidelity the results have been unhappy.

Even when one has surmounted all these obstacles, the care and feeding of professors is an art in itself. I do not need to point out that salaries, whatever they are, are ipso facto miserable; they always have been and always will be wretched. Our first obligation is to make them less wretched. Only when that is done with vigor and sincerity can one begin to stress the moral and spiritual compensations which go with teaching.

But there are other things which can be done; there are what might be called "fringe benefits." A policy of active generosity in the matter of sabbaticals and leaves of absence pays heavy dividends. It is worth accepting great inconveniences to let professors go elsewhere for a time, gain new experiences, and broaden their contacts.

Another potent aid to faculty satisfaction is what I define as obedience to the 11th commandment: Thou shalt not commit. As a young member of the faculty I served on committees that did administrative work and that did manual labor, such as hanging the Japanese lanterns at commencement.

I did more irrelevant things than were necessary, and, in such small matters as lack of telephone service and occasional stenographic help, I was forced to waste time and effort. These "savings" looked all right in the public budget but were costly in the invisible budget.

If a professor teaches and studies and sees students, that it about all one should ever ask of him. Administrative officers are the servants of the faculty, and they ought to serve and

Some of you may be not only intellectually but physically restless because I have mentioned so many aspects of the president's labors which he must learn—but cannot master all at once—without ever referring thus far to his educational leadership, a phrase I am tempted to put in quotation marks.

One faculty member in a well known and distinguished institution said that the president's educational leadership consisted in going to meetings, listening with half his mind to what was said, and then coming home and imitating projects he did not fully understand. It was a savage comment but contained more than a grain of truth. The plain fact is that with all his other preoccupations the president will have to read and study, reflect and cogitate more than most do in order to exercise imaginative leadership over any considerable period of time. In general, he must be hospitable and sensitive to suggestions and not too deeply concerned with their originality. The dangers lie in getting administrative affairs so overorganized that they lose their freshness, that teaching loses its zest, that routine takes the place of excitement and drive.

If a president remains long enough in the business, it becomes clear that there are cyclical movements in reform. One must avoid cynicism, therefore, when something is proposed anew which was practiced 30 years before. Every reform carries the seeds of its own decay. There is nothing wrong consequently with a return to an old approach if it is done with new knowledge, fresh insights, and zestful energy.

In education, as in politics, leadership is to some extent real and to some extent an optical illusion. The ideas are likely to come from elsewhere; it is the responsibility of the president to dramatize them and to expound them, negotiate their passage, and facilitate their trial. If these functions are well performed, the results are often better than those which follow an attempt on his part to be the originator, the creator, and the actual leader.

The relationship of the administrator with the students is one of the most difficult of all his tasks. If he begins young enough, it will be remarked with approval that he appeared in the locker room and took a vital interest in athletics. He had not yet been reduced to golf but was able to play



The administrator must please modernist and traditionalist but to compromise between them pleases neither!

not to govern, and certainly ought never to rule. I know colleges where faculty people are tied up two or three days a week with committee work from 4 o'clock on. The administrative costs look low in the budget, but instructional time and study time are wasted in inefficient administration. Moreover, there is a steady warping of perspective as a consequence of eternally hashing over the trivia that come before most committees. If these services were taken into account under administrative costs, where they belong, the expense of instruction would shrink and that of administration would burgeon.



Relieve the teacher from serving on committees that do administrative work and from manual labor, such as the hanging of Japanese lanterns.

tennis and to throw a ball and play on the faculty baseball team without making a perfect ass of himself.

But the man who keeps that up a moment too long does not make himself popular; he just makes himself ridiculous. There comes a time when respect has to take the place of good fellowship, when "sir" becomes part of every sentence addressed to him. Then, if students refer to him by his first name or nickname, it may not be with affection but as a form of ridicule.

I forbear to say much about the president's public relations. In the modern world it is extremely important, but pressure is often exerted to have him base public relations upon an entirely erroneous principle—namely, to say only the things to which everyone will agree immediately, to put himself in a descending spiral of timidity, finally to say nothing at great length. I believe it is the responsibility of a college president to have opinions and to express them with vigor and forthrightness and yet with as much

tact as he can summon without losing the point.

Particularly in dealing with alumni, it is essential to talk about educational matters and to treat them as adults and not pander to the group that thinks of nothing but athletics. This is a very small group that gets far too much attention. But public relations is a side of the business that has to be learned.

SOME TRUSTEES QUITE BRITTLE

Finally, there is the relationship to the governing body. This must be one of complete candor; board members should be kept informed and interested if possible. Proposals ought to be advanced with a view to obtaining a consensus; they should be reshaped and modified until a consensus is in sight, or abandoned if compromise has ruined their substance. It is a mistake to press trustees too hard; an educator should stop before the breaking point, remembering that some trustees are quite brittle.

The university president must do all these things but he cannot do them all at once. Therefore, while he must do some of them all the time, he must do the others only from time to time, and he must find space in his calendar and energy when he does them at all to do them well—thoughtfully and completely.

Besides their sheer bulk, there is another reason it is essential to attack some of them from time to time, instead of all the time: It is to escape boredom. No administrator long in office will have difficulty understanding what I mean. Boredom can be escaped by varying the emphasis in one's duties. I have found that the greatest single source of refreshment is to change the zone of my own activities from time to time.

DEPUTIES GET BORED, TOO

In order to do this, one has to deputize some of the duties, but none of them in perpetuity. This has a marked effect upon one's administrative theory and practice. If one is devoted to rigid design and likes a chart of the organization of the university system bureaucracy that he can paste on his wall, he will make assignments which can be changed only by involving a rebuke to the person relieved of his duties. Long ago therefore I adopted a fluid type of administration. There is no clear definition of what a dean should do or what a business officer or registrar should do; the

authority or the influence exercised by those people depends, as do the influence and authority of the head, upon the personality and the adaptability of those who from time to time hold the office.

Often they too get bored with the "uninteresting repetitions of familiar strenuous exertions." One must therefore watch his administrative colleagues and, at the first sign that they are bored or stale or fatigued, make such adjustments as bring to them the same refreshment that the president can find by varying the accent on his own activities.

For my part, I think there is another practical reason for a fluid administration: There are not so many boundary disputes. Two things can happen when a firm and formal assignment of deputized duties is made: A man will either stay away from the boundaries of his neighbor or he will crowd them. The first produces a vacuum and the second friction. If there is a zone of mutual activity, they tend to work together better and there are not so many appeals to the president to settle quarrels. If there are occasional conferences in his office as to which one shall take over a project, the assignment ceases to be a matter of *amour-propre* and becomes one of convenience.

All this may be taken as a horrible confession by some of my colleagues in the craft. However, if I had it to do over again, I would turn to this theory of administration earlier and apply it more freely.

I think it tragic that the tenure of many college presidents is so short, that so many run afoul of trustees who are men of good will but without *expertise* in a field which is highly complicated and very technical, where the analogies to business are often more deceptive than revealing, and where business ideas when transferred become the enemies of good administration. We have in America a unique governing relationship. The varieties of charters, the multiplication of by-laws, and the differences in size, objectives and resources make each of our institutions a separate problem. There is room, however, for the professional administrator—the person who gives his whole working life to it. In this career he can find profound satisfactions, his own share of good, clean fun and a rich deep-down joy—as well as some frustration, many disappointments, and occasional heartbreak.



It is important right now for those responsible for the investment of endowment funds to study their individual holdings in terms of their particular needs and to try to chart their goals. Boards of trustees and investment committees need expert counsel on securities. The best advice is usually expensive in dollars but often cheap in terms of results.

College Endowments and the Market

W. E. CAMP

Treasurer and Business Manager, Wells College

FOR THE FIRST TIME IN MORE THAN 25 years we are in the midst of what appears to be a major upward trend in both stock prices and values. This is of great importance to educational institutions, particularly endowed colleges and universities, and it is our concern to determine whether we are prepared to benefit from the expanding economy that is being reflected.

Twenty-five years ago endowments were a major factor in the financing of higher education, when the average yield on book values was in perhaps most cases 6 per cent or more, and when endowment income represented upward of 25 per cent of total income for many colleges. But in the interim college administrators have watched with dismay the decline in interest rates and dividends, as well as the relative importance of endowment income. These changes, along with monetary inflation, have been partly responsible for the large increases in student fees and charges. With the present optimism for an era of peaceful prosperity and the expansion of the national economy comes the prospect of some greater stabilization, perhaps even some reversal of these trends.

On the eve of a great expansion in student population, it may be safe to predict that the effects of business ex-

pansion could help, through higher dividend payments, to counteract increasing dilution of endowment income that has been threatened by the higher enrollments. In this event endowment funds will assume even greater relative importance in institutional financing.

But are endowed colleges and universities prepared for the change? Many portfolios in recent years have of necessity included large amounts of government securities on the one hand, with relatively small percentages of corporate bonds and preferred stocks, and an average of around 40 per cent in book values in common stocks. Many common stock holdings as well have been defensive in nature.

Recent statistical data, however, disclose that some of the large and important endowments reflect increasing participation in growth stocks. That is to say that some endowment managers already have cast a critical eye over their holdings, especially where book values are low. Those that are holding sizable blocks of equities, purchased in the 1930's and 1940's with low book values in terms of today's market, may wish to consider the possibility of freezing a portion of their paper profits by investing the *profits* in stable fixed income securities. This

could serve to increase the total endowment reserve against future depreciation and tend to stabilize values. The immediate benefit would be about the same as from other additions to endowments.

Those institutions that are tied to a formula plan that does not provide for sensitive adjustment to growth may find little satisfaction in present markets. This would be true particularly in cases in which heavy percentages of government bonds of medium or longer term maturity are held with a defensive selection of common stocks as well.

It is important, therefore, at this time for administrators and those interested in the responsibilities connected with the investment of endowment funds to study their individual holdings in terms of their particular needs and aims, and to try to chart their goals. Boards of trustees and investment committees should have expert counsel on the securities for which they are responsible. It can be even more important to have proper selling advices now than advices on purchases. In this field, as in many other specialized fields, the best advice is usually expensive in dollars, but very often cheap in terms of results over a period of years.

The "Teleclass" Is Stephens' Contribution

as opposed to the "telecourse" now being tried on several other campuses. Too, this college uses industrial equipment for its closed-circuit TV system

WILLIAM KENNETH CUMMING

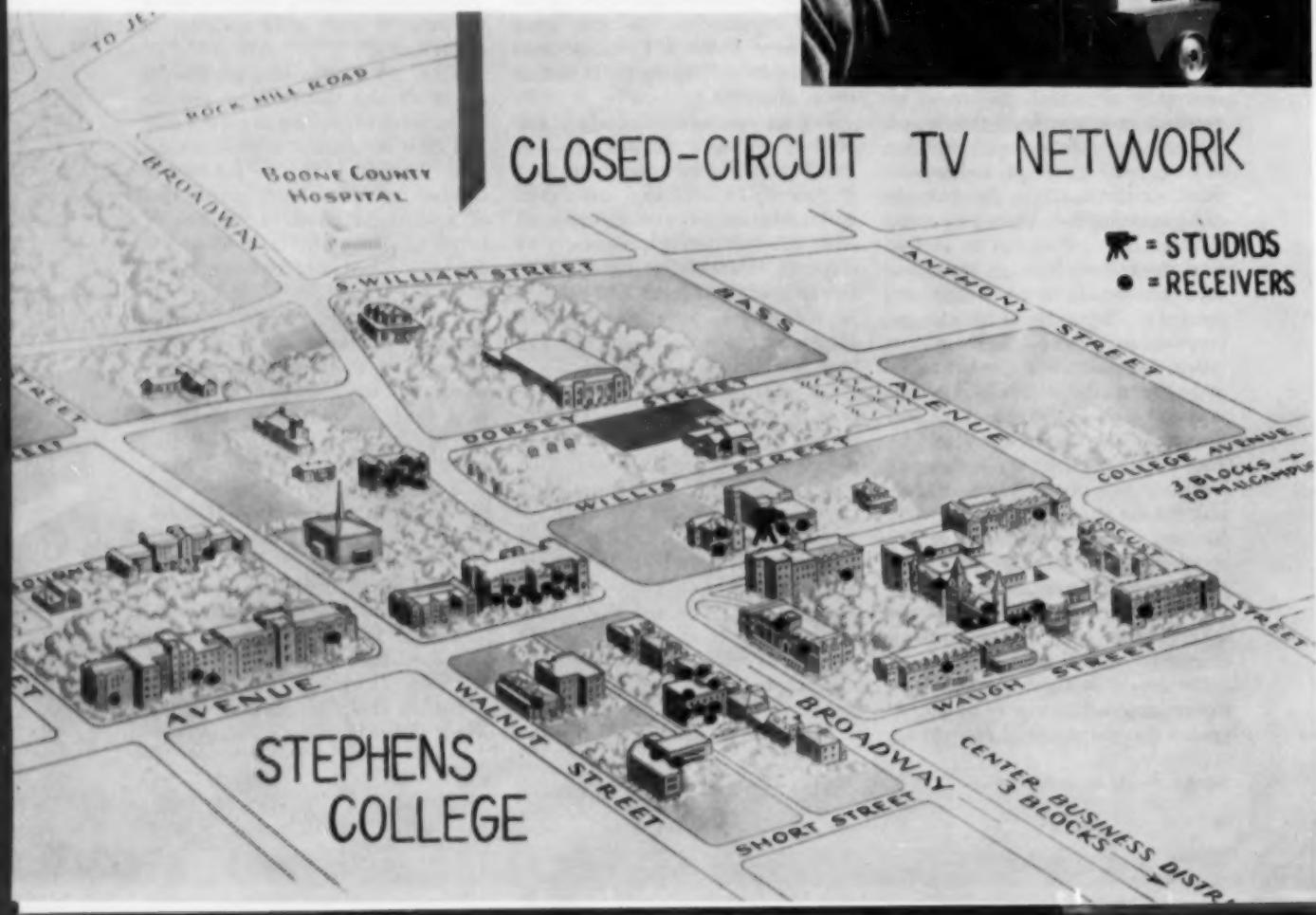
*Chairman, Television-Radio Department, and Director,
Television Development, Stephens College, Columbia, Mo.*

ABOUT FIVE YEARS AGO, OUR TELEVISION-radio department at Stephens College tried to obtain funds to buy image orthicon cameras so that courses could provide actual experience for television students. The attempt was unsuccessful. As the next best approach, two sound-on-film cameras and appropriate lights were purchased. In the fall of 1955, however, the department was able to make its television courses practical through the installation of three vidicon camera

Right: Stephens College student operates a camera for the closed-circuit course. Industrial equipment is used. Below: Map of Columbia, Mo., showing the location of the studios and the receivers on the Stephens College campus.



CLOSED-CIRCUIT TV NETWORK



chains. Actually, acquisition of this television equipment came about in another manner and for another purpose. The story of what led to that acquisition is an interesting one.

At Stephens, there has been a feeling for some time that students who enter institutions of higher learning are at a marked disadvantage because many cannot readily discern the interrelatedness of a school's offerings and, beyond that, cannot see how the efforts they apply to education are transferable to life.

Stephens itself, a junior college for women, offers an extensive list of subjects that include everything from learning to fly an airplane to how to apply makeup. Although they are at first glance luxuries, these offerings are actually only additions to a correlated basic college program with a wide range of course choices.

Further emphasizing the matter of choice is the fact that the Stephens student has little in the way of a required curriculum. Other than one or two basic requisites, the young woman can choose a schedule of courses to meet her individual needs and interests. It is this very range of choice at Stephens that highlighted the problem of interrelatedness as well as the need for sharpening student thinking processes involving life as it is lived today.

What seemed to be called for was an interdisciplinary course, required of all entering students. What then, it was conjectured, would be an educationally sound as well as an economical format for such a class?

It seemed axiomatic that an interdivisional course of this type ideally should center on neatly packaged and top-flight source material that could be chewed on by students in intimate discussion groups where they could get accustomed to asking basic questions and to relating broad concepts. Yet how could the college possibly afford to hire teachers to prepare and integrate course material and then meet enough discussion sections to encompass an entering class averaging 850 students?

Conceivably the first-year class could be placed in an assembly hall or in large sections meeting in lecture rooms. But could that be worth while? Not only was the problem of the student-in-the-back-row distasteful, educationally speaking, but it ran headlong into the college's philosophy itself, which is dedicated to small



J. C. Penney, department store magnate, takes part in a TV program.

classes and an individualized approach to learning.

While pondering this dilemma, administrators were shown an unpretentious television demonstration making use of an industrial camera chain. Though unexciting, the showing nevertheless served to catalyze a thought that several had been mulling over. Television had been considered all along but here, apparently, was the economical solution to it all—TV with equipment that used the low-cost vidicon tube.

A plan evolved. It called for purchase of industrial type TV equipment because of its compact size, its low price, its mobility, its relative ease of maintenance, and the fact that it normally could turn out a satisfactory picture for a closed circuit TV system. The equipment would be operated by the television-radio department. An outstanding teacher, one who could be obtained for a school term and who already would have enough of an interdisciplinary approach himself so that he could put together material for the interdivisional course, would be brought to the Stephens campus each semester. Twice a week he

would make a 20 minute presentation on TV to all first-year students simultaneously, but they would be in 50 small groups scattered over the campus. After this stimulus, each group would proceed under its own power, but guided by a member of the regular faculty, for a full 40 minute discussion. Such a system would make use of some of the most eminent teachers obtainable and not be a drain on the regular faculty since an excessive amount of preparation time for them would not be involved.

These, in essence, were the Stephens' ingredients for what in educational television might be called a "teleclass." A teleclass brings the core of the course material to the student by television with the presentation being supplemented by discussion or by additional classroom material. This is opposed to the "telecourse," where course material is brought to the student exclusively by television. Still a third category would be courses that use television as a supplement to regular classroom work like any other audio-visual tool.

The Fund for the Advancement of Education backed the Stephens plan

with \$55,000 to provide salaries for the guest teachers and to offer some remuneration to the faculty discussion leaders as well as take care of related costs for a two-year period. R.C.A. added \$3700 to the Ford monies.

Although scheduled to be installed last July 1, the TV equipment did not arrive in its entirety until the very end of August. The installation was not complete until September 10, and engineers worked on it sporadically thereafter. Nevertheless, the teleclass, called "Ideas and Living Today," went "on the air" on September 20 and has continued each Tuesday and Thursday since.

What we at Stephens have tried to do, then, is to make certain course material more effective by using television. The TV lecture presented in conjunction with discussion within the same class period and carried on campuswide for an entire college class is what sets the Stephens experiment apart from other intraschool uses of television. Most other plans have been more concerned with test-

ing the effectiveness of instruction by television in order that it might be used as a device for alleviation of teacher and classroom space shortages while keeping costs down. True, television at Stephens points to these advantages of the medium too. But our main goal is to increase student involvement in pertinent source material by having an outstanding communicator talk to her intimately and eye-to-eye via the TV screen; she is then thrust into an immediate small group discussion follow-up without change of place or break in time.

Generally speaking, we are pleased with the apparent results from "Ideas and Living Today." The course has become the talk of the campus; students seem to be getting a different slant on idea-centered material, and the majority of them are becoming increasingly interested in this provocative learning method. Furthermore, it is clear that discussion leaders have been immensely stimulated to take a new look at educational approaches and to ways of improving their own teaching.

President Thomas A. Spragens (in dark suit, facing camera) and members of the board of curators observe students working in the TV control booth.



However, it is far too early to place any realistic evaluation on either the technic or the content of such a pedagogical process as it is being used at Stephens.

There are a number of other interesting aspects pertaining to the beginnings of television on our campus. Equipment was to be manned by students in the television-radio department, but the first day for the program was also the first day that TV production classes were to meet, and these students had had no prior TV training.

As the faculty was told several days before the course began, for all practical purposes we were putting a miniature TV station on the air with an untrained and emergency crew (we would shift to a regular crew later), a crew of all girls, and this with equipment never before used for regular programming purposes. It is important here to remember that Stephens is using straight industrial television equipment, not the professional type of vidicon or the film chain vidicon with its more expensive tubes. The equipment does have maximum picture resolution, however.

Departmental offerings were revised less than a month before school opened to allow enough staff time to be available for both TV programming and TV teaching and to offer enough courses to get enrollees for studio and control room operations. The emergency crew that we recruited the early part of registration consisted of students who would probably be enrolling in production classes. Time allowed only three short sessions of instruction before the first program was presented, and staff members had to take over several positions because there were not enough students available. When production classes began, regular enrollees were seeded into crew positions gradually.

Since we believe it is always a good idea to let administrators know what the operational side of television is all about, the department held a TV workshop for them as soon as possible. The staff explained operation of cameras, boom mike, switcher, audio console, and the like. Everyone from the college president on down the administrative line got something of the feel of actually running the equipment. This served a number of purposes: It reinforced top faculty knowledge of the medium and especially of its complexity; these people had fun operat-

ing the equipment, and the workshop pointed to certain areas where needs had not been anticipated. We received two unsolicited but badly needed microphones several days after this workshop.

Television programming at Stephens does not consist of merely reporting what is in front of fixed TV cameras. It is not outstanding, perhaps, but time and cooperative endeavor can help that. One thing we were adamant about from the outset was that our cameras would be mobile. We were determined to make an attempt at using closed-circuit television as a medium of communication, not simply as a pipe line, not as a reporter pinned down to a fixed spot like the student in the classroom.

But we are using television equipment of a type never used before for live productions where standard TV programming procedures are employed. This has meant that a considerable number of adaptations have had to be made. In fact, entire new production procedures have been devised.

One example will show what is meant. Focusing normally is handled by the individual cameraman, but in our system, except when a zoom lens is used, focusing is the job of the video operator who controls it remotely along with picture brightness and contrast at the camera monitors. Without a viewfinder on her camera, a camera operator has to be talked into position whenever that camera's picture is not on the studio line monitor. The video operator, therefore, often acts as an assistant director, setting up shots in advance of their selection by the director. Amazingly enough despite equipment restrictions, this and similar procedures that have been developed have been relatively successful for simplified programming.

It is easy to see that vidicon programming methods depend to a large degree on the type of equipment being used. Industrial cameras without viewfinders require one thing, those with 3 inch viewfinders call for another. However, newer models with larger viewfinders, easily racked turrets, and other similar standard attachments can be operated much as are image orthicon cameras used by regular broadcast stations.

Two major thoughts come out of this. They are: (1) Equipment must be matched carefully to the needs of an individual school, and (2) pro-



Dr. Reuel Denney of the University of Chicago, teacher of the Stephens course for the first semester, appears on the TV screen in a classroom.

fessional personnel, who combine the best thinking of educators and TV producers, is essential.

Sometimes educational institutions stumble into the mistake of concentrating on the business aspects of television just as soon as the decision has been made that the medium is to be used. It is precisely when such a decision has been made, or even before, that the advice of professional TV educator-producers is sorely needed. Their counsel and decision are needed before elements of cost, personnel and time are broached and consummated. For, even though a limited budget may prevent the acquisition of image orthicon equipment by most schools, advice is needed to get the most out of the money that is available and to block out best possibilities for a long-range future.

Educators who visit our campus often inquire about costs, what equipment to buy, how much personnel will be needed, how much time program preparation will take, what kind of teacher should be selected for TV, and other similar questions in a manner that indicates they are making vital decisions themselves. Yet frequently a TV producer-coordinator or

a TV consultant is not yet available to them in any substantial capacity. Apparently many institutions expect to obtain personnel or to convert people from other duties *after* major decisions have been made. But the step they take last must come first if maximum results are to be obtained from the beginning. This, incidentally, applies not only to preparations for closed-circuit TV but also to institutional and community planning for broadcast stations.

Once an educator-producer has been obtained and top decisions are made, he can train others in production and programming for a closed-circuit setup. We discovered at Stephens that at least one other full-time person in addition to the teaching and production staff is needed. An engineer-technician to handle the electronic aspects of the equipment, to maintain it, and to make improvements is essential. A part-time man also is necessary constantly to check the circuit's receiving sets and keep them at optimum operating level. If more than 50 sets are to be serviced, a full-time man may be required.

In addition, if the TV staff itself has its time devoted both to TV programming and to teaching courses in

television, help must be provided for such jobs as designing and erecting sets, for graphic art, and for working out technical improvements. One example of what such a person might do: Schools using vidicons but unable to afford a chain that can be used exclusively for film will want to experiment in construction of various kinds of multiplexers or shadow boxes so film and slide pickups can be made on a studio camera. A studio supervisor or technician should be available if maximum good is to be derived from the closed-circuit equipment.

Details of the physical arrangement of the Stephens TV installation may be appropriate information to some. It is well to remember though that our installation or that of any other school should not be imitated exactly. Every institution can learn from others, but it should consider carefully its own needs before buying exactly the same kind of equipment and installing and using it exactly the same way as does a sister school.

52 TV RECEIVERS

There are 52 standard 21 inch TV receivers tied into the Stephens closed circuit. The majority are in classrooms but some sets are in residence hall lounges or other lounges, including the faculty commons. Fifty sets are used by sections of the teleclass. Each of these has a special base with an improved speaker. Rooms that have TV receivers were selected with priority going to large classrooms, rooms with readily accessible A.C. outlets, and those most convenient from the point of view of discussion leader and student traffic.

An antenna for Channel 8, KOMU-TV in Columbia, is connected to the coaxial system so that TV receivers can pick up that station's shows as well as the Stephens programs over Channel 4, an outlet we dubbed KWWC-TV for closed-circuit programming purposes.

KWWC-TV's video and audio signals are fed into an audio-video mixer that makes a composite of them and sends it to an "antennaplex amplifier." The R.F. impulse then feeds out over 11,000 feet of coaxial cable. One leg goes to south campus where eight buildings have a total of 14 TV sets. Another leg to north campus feeds eight buildings and a total of 34 TV sets. A third goes to two buildings and four sets. Approximately two-

thirds of all campus buildings and about one-fourth of all classrooms have TV sets. Four line amplifiers boost the signal at strategic spots.

A radio studio 16½ by 32 feet was converted into a TV studio. Its control room is 7 by 16 feet. By running camera cables into a near-by radio studio, 14½ by 18½, we can add another studio.

A gray cyclorama that can be moved by drop rods covers the walls of the main studio. Lighting consists of scoops and spotlights hung from a grid, plus additional lights available on floor stands. A portable switchboard dimmer with six circuits allows lights to be raised to any desired degree of intensity. Lighting costs ran a little less than \$1500. Plans now call for the addition of fluorescent lighting to the main illumination since its blue-green spectrum would help the vidicon pickup.

Audio consists of two turntables, one console, and a variety of microphones. All audio units, with the exception of two lapel mikes, were already available as television-radio department equipment. Tape recorders are in use.

Our video at Stephens consists of three TV chains. Lens complements are a 2 inch, a 1 inch, and a ½ inch, and a zoom lens. Professional motion picture as well as standard tripods are mounted on welded steel dollies built on campus. We added our own tally light and intercommunication systems.

Two standard 17 inch receivers are used for line monitors, one on a jeep in the studio and the other above the

camera monitors in the control room; video monitors would have been preferable. A switcher controls the pictures, and synchronization is provided by using one control monitor's generator as a master. Allied equipment provides for control and testing. In a package arrangement with a wholesale distributor, video costs for studio equipment, coaxial cables, and receivers amounted to about \$32,000, including installation costs.

All television equipment at Stephens is operated by students in the television-radio department, a division that teaches courses in three media of communication: television, radio and motion pictures. "TV Production 18," offered every term, provides students for both TV and film crews. TV studio positions that students concentrate on include floor manager, cameraman, cable boy, mike supervisor, staging supervisor, lighting supervisor, and projectionist, as well as work as art director. TV film positions are those of director, cameraman, audio operator, and script writer.

ROTATED FOR EXPERIENCE

Students in "TV Production 19," also offered every term, are the control room personnel. Positions include: producer-director, assistant director, switcher, video operator, audio operator, announcer and recording technician, as well as the job of music and continuity supervisor. These girls write television scripts, then produce and direct their own shows. In both production classes, students are rotated so as to gain experience in all positions; no on-the-air program ever uses exactly the same crew combination utilized by any program before.

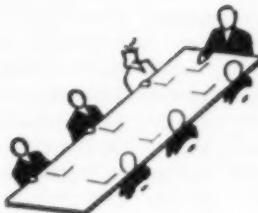
Other classes that work with the television equipment are an introductory class and the "announcing" class, where young women appear in front of the TV cameras and also present commercials, written by the "writing" class for TV film productions shot on the motion picture cameras.

In addition to operation for student training purposes and for presentation of the teleclass, the television equipment is used for other campuswide programs. Two examples were an hour and a half live presentation produced by the TV-radio fraternity and a 15 minute Campus Chest show. Equipment is employed for experimental programming as well, and for rehearsal of productions to be presented over broadcast stations.



Two members of the TV and radio staff and a student load film in TV camera.

Five tips for presidents on



Getting Along With the Board

I. D. WEEKS

President, University of South Dakota, Vermillion

THE MEN AND WOMEN SERVING ON governing boards of the colleges and universities of this country are contributing an important service to higher education. They are citizens with ability and character, who are interested in education. For the most part they serve without pay and many of them actually suffer financial loss because of the time taken from their business or profession to perform the duties of the governing board.

The stature of institutions of higher learning is largely determined by the members of governing boards. They make the policies for the school. They select the president who is to administer these policies. They serve in a liaison capacity between the college and its constituents. In publicly supported institutions they interpret the activities and needs to the legislature and to other public officials.

When a board conceives its principal duty to be that of making policies, it must select a president to administer the institution in accord with these policies. Perhaps the most important act of a governing board is the selection of a president. He is the chief administrator and, in a sense, is a liaison between the faculty, students and the board. It is therefore of the greatest importance that the relations between the governing board and the president be cordial, friendly, professional and cooperative. The president, if aware of the significance of maintaining the best possible relations with his board, is in a position to create the proper climate for mutual understanding.

There are numerous things that he may do to promote the proper working relations. Among these are:

1. Be entirely honest with the board in all matters. It is poor judgment for a president to attempt to "put something over" on the board. In pre-

senting recommendations for approval, he should be certain that anything unusual is clearly explained. When proposing a new curriculum or administrative change he should present the reasons and the objections, if the latter are anticipated. Mutual confidence between the president and the board is essential to the proper teamwork. This cannot be obtained without complete honesty in all relations.

2. Board members usually are busy people, unable to devote as much time as they should like to institutional problems. The president should consider it a part of his job to keep them informed about the objectives, activities, problems and plans of the school. He may take a few minutes at each meeting to explain some particular problems. He can encourage board members to visit the campus so that he may take them on a tour of the buildings and grounds.

Since much time in meetings is devoted to special problems (some of which are not pleasant) and to general routine matters, it would be well for the president to inject into each meeting some brief comment about an area of development or progress in which there would be mutual satisfaction. Board members whom I have known have gained my admiration for maintaining an attitude of optimism and faith in the institution and its staff in spite of situations that are frequently unpleasant.

3. The president should take ample time to inform the board about a proposal in advance of making it as a recommendation. This is especially important if the matter is controversial or involves delicate personnel questions. A board will not, or should not, always agree with a president, but it is better to acquaint the board with these matters prior to making a formal recommendation which, if

turned down, may make for misunderstanding and distrust and, if approved, may cause embarrassment.

4. It is assumed that a college administrator will conduct the affairs of the institution in accord with the policies of the board. Failure to do so can only result in trouble. If a president feels that a policy should be eliminated or changed it is his duty to discuss it with the board, but so long as he is president he is obligated to carry out the wishes of the board.

5. Unwittingly a president may embarrass his governing board by speeches that he makes or articles that he writes on controversial questions. It is not implied that a college administrator should compromise his ideas or be denied freedom of speech, but it is poor judgment for him to make speeches on noneducational controversial subjects that will make the public critical of him and of the board.

A man cannot separate himself from his position as president. He cannot be a Dr. Jekyll and a Mr. Hyde. Certainly, he should be free to speak on educational questions and matters pertaining to the school for which he is responsible, even though they may be controversial. In fact, it is his duty to do so. On the other hand, certain questions in areas of politics, religion and economics should not be publicly discussed by a college president unless and until they have been cleared with his board.

The effectiveness of administration in colleges and universities is determined in a large measure by how well governing boards adhere to their accepted functions and how well the presidents of these institutions administer the policies as set forth by the boards. It is obvious that there must be a feeling of confidence and respect between the college administrator and members of the board.

Does the student have a

Legal Right to Earned Academic Credits?

T. E. BLACKWELL

*Vice Chancellor and Treasurer
Washington University, St. Louis*

MARY CATHERINE STRANK ENROLLED as a student nurse in the school of nursing conducted by the Mercy Hospital of Johnstown, Pa. After having successfully completed the work prescribed for the first two years, she was dismissed from the school in her third and final year of training because she had broken a rule of the school by remaining away overnight without permission. The rules of the institution, published in its catalog, provide that an infraction of any of them would automatically cause the dismissal of the student, and, in the event of such dismissal, no transfer of credits would be given.

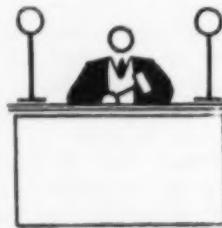
Miss Strank brought an action against the hospital and its director of nursing to compel them to issue to her credits for the two years of work she had completed so that she might obtain advanced standing in another nursing school. Her case reached the supreme court of Pennsylvania in January of 1954. Justice Chidsey, in his opinion,¹ pointed out that, since the Mercy Hospital is a privately conducted institution, without support from public funds, a court cannot issue a writ of mandamus compelling its officers to issue credits to a student.

COURT GRANTS HER RELIEF

Miss Strank and her attorney continued their efforts to obtain a favorable decision. Finally, in November of 1955, the supreme court of Penn-

¹Strank v. Mercy Hospital of Johnstown, 102 A 2d 170 (1954).

sylvania held that a court of equity had jurisdiction to grant her relief. Chief Justice Stern, in his opinion,² stated that courts of equity "have jurisdiction not only for the prevention of acts contrary to law and prejudicial to the rights of individuals, but also for the enforcement of obli-



gations whether arising under express contracts, written or oral, or implied contracts, including those in which a duty may have resulted from long recognized and established customs and usages, as in this case, perhaps, between an educational institution and its students.

"It is unfortunate that a case which involves merely the claimed right of a student nurse to be given credit for her two years work . . . should be enveloped in a veritable maze of pleadings, arguments, decisions and appeals now protracted over a course of three years . . ."

This 1955 decision overruled, in

²Strank v. Mercy Hospital of Johnstown, 117 A 2d 697 (Nov. 14, 1955).

effect, a decision handed down by the same court in 1923. In this earlier case, Margery Barker, dismissed from Bryn Mawr, sought a writ of mandamus to compel the college to reinstate her. The college catalog contained the usual statement that the "college reserves the right to exclude at any time students whose conduct or academic standing it regards as undesirable."

The court held that the relation between a student and a college, privately conducted and without support from public funds, is solely contractual in character. Therefore, a court of common pleas has no jurisdiction to issue a writ of mandamus to compel her reinstatement after dismissal. Moreover, if the institution has reserved the right, as in this case, to exclude at any time a student whose conduct or academic standing it regards as undesirable, its officers are not required to prove the charges against the student, or to conduct a hearing before dismissal.

CAN RESTRICT ADMISSION

In general, privately controlled and supported colleges and universities are free to select whom they will admit as students, and to restrict admission even on arbitrary grounds, since no one is entitled, as a matter of legal right, to enter a private institution.³

The legal rights of a student enrolled in a tax supported institution are substantially greater than one enrolled in an endowed college or university. In 1887, a 16 year old student, living at home with her parents, was expelled from a Missouri state normal school because she had attended an evening party without the permission of the school authorities. She was successful in obtaining a writ of mandamus to compel her reinstatement in the school.⁴

In 1897, a student, previously enrolled in the state normal school at Peru, Neb., was refused readmission, despite the fact that he had met all the published requirements. His father received the following note:

"Your son . . . having applied for admission to the State Normal School, the faculty, after consideration of the interests of the school, deem it best

³Elliott, E. C., and Chambers, M.M.: *The Colleges and the Courts*, p. 20. The Carnegie Foundation for the Advancement of Teaching, New York, 1936.

⁴State ex rel. Clark v. Osborne, 24 Mo. App. 309 (1887).

to refuse the same. This action is taken without reference to his guilt or innocence in matters with which his name has been connected."

The supreme court of Nebraska⁵ ordered the faculty to readmit him, on the grounds that the record of the case showed no rational reason for their refusal.⁶

In 1928, the president of the State University of Montana dismissed a young woman student on the grounds that she and her husband had served intoxicating liquor to other students in their home, contrary to university regulations. The court held⁷ that she had been accorded a sufficient hearing by being called before the council of deans, informed of the charges, and given an opportunity to deny them or to make a statement concerning them.

The court pointed out that, since there is no power vested in the president of a university to compel attendance of witnesses or to force them to testify, a proceeding as formal as a court of law was impossible. However, there was a strong dissenting opinion to the effect that the student had not been accorded a fair hearing by the university.

REFUSES TO GRANT REQUEST

In 1942, a student was expelled from the school of medicine of the University of Tennessee on the charge of the theft of examination questions. In his suit for reinstatement, he claimed that he had not been granted the right to confront the witnesses against him and cross-examine them. The court,⁸ in refusing to grant his request, stated that:

"We find it to be the unanimous holding of the authorities that the courts will not interfere with the discretion of school officials in matters affecting the discipline of students unless there is a manifest abuse of discretion or where their action has been arbitrary or unlawful."⁹

⁵Jackson v. State ex rel. Majors 77 N.W. 662, 42 L.R.A. 792 (1898).

⁶See also: Blackwell, T. E.: The College Disciplinary Committee and the Courts, Coll. & Univ. Bus. 8:5 (May) 1950.

⁷State v. Clapp, 263 P 433 (Mont. 1928).

⁸State ex rel. Sherman v. Hyman, 171 S.W. 2d, 822 (1942); 18 Tenn. Law Review 210 (1944).

⁹See also:

62 American Law Review 438 (1928).

7 Boston University Law Review 295 (1927).

41 Harvard Law Review 395 (1928).

26 Michigan Law Review 931 (1928).

Continuing a series on finance

by JOHN DALE RUSSELL

Chancellor and Executive Secretary
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Analysis of expenditures for

INSTRUCTION

IN PREVIOUS ARTICLES OF THIS SERIES, we have discussed the technics of analysis of expenditures for administration and general purposes, for libraries, and for plant operation and maintenance. We now come to the most important category of expenditures for educational and general purposes—those for instruction.

This is the heart of the college program, the very reason for the institution's existence. Also, it normally requires a larger expenditure than does any other institutional function.

versity can spend too much for instructional purposes.

There are never enough funds adequately to compensate well qualified faculty members for their services, never enough funds to purchase all the supplies and equipment that facilitate and improve the instructional programs, never enough funds to relieve faculty members of their many sundry chores of clerical nature, and never enough funds to send faculty members to every professional conference they should attend. Consequently, it is assumed that every dollar devoted to instructional purposes is a dollar well spent.

We ourselves are not disbelievers of this dogma; we believe in it as fully as any academic dean or faculty member. In fact, one of the primary purposes of any analysis of expenditures for educational and general purposes is to determine if an institution is putting every dollar it possibly can into the function of instruction.

Why, then, bother to analyze expenditures for instruction? One reason is this: There are many ways to spend a dollar. While every dollar devoted to instructional purposes is a dollar well spent, one must ask himself if it could have been used more effectively.

For example, although few institutions, if any, are in a position to pay each faculty member the full measure of his or her value, they can and do have the obligation to reward the competent more adequately than the less competent. An institution has the



A college or university may engage in many other public services, such as organized research, extension activities, and public entertainment in the form of intercollegiate athletics, but instruction is universally recognized as its primary function.

Paradoxically, however, expenditures for instruction have been subjected to less critical analysis than those for some other ancillary activities, such as libraries and plant operation and maintenance. This situation in all probability reflects the dogma, espoused by academic deans and faculty members, that no college or uni-

Table 1—Percentage of Total Educational and General Expenditures for Instruction, and Amount per Student for This Function, in Six State Institutions of Higher Education

Year	Institution						Six Institutions Combined	
	A	B	C	D	E	F		
Percentage of Total Educational and General Expenditures for Instruction	1951-52	59.6	67.2	61.6	44.0	61.3	48.8	59.5
	1952-53	60.1	61.8	60.4	43.5	61.7	46.9	58.5
	1953-54	61.1	63.1	57.9	48.9	56.6	46.9	59.0
	1954-55	61.0	61.8	60.1	50.4	54.4	48.4	59.0
	1955-56*	61.0	58.7	58.2	50.2	57.1	49.7	58.5
Expenditure per Full-Time-Equivalent Student for Instruction	1951-52	\$494	\$548	\$415	\$426	\$455	\$857	\$494
	1952-53	490	480	544	459	463	780	496
	1953-54	507	470	486	478	432	815	494
	1954-55	460	428	417	450	334	815	440
	1955-56*	485	510	424	525	456	848	490
Estimated Full-Time-Equivalent Student Enrollment, 1955-56, Entire Year		4115	1825	1020	497	1022	189	

*Data for 1955-56 based on budget estimate.

responsibility of attracting and retaining the most capable faculty it can with the funds available.

A second reason for analyzing instructional expenditures is to determine financial needs as they relate to efficiency of operation. Granted that an institution can nearly always use more money for the support of its instructional programs, is it making the maximum use of its present teaching staff and facilities? One needs to study only a few colleges to observe that, with the same or nearly equal faculty-salary budget, one institution regularly manages to serve more students than another of comparable quality and curriculum. The latter institution certainly has the obligation to show why it cannot accommodate additional students with its present staff, in any request for funds to employ more instructors.

A third reason, one that is peculiar to a central coordinating agency for a group of colleges and universities, such as the New Mexico Board of Educational Finance or an education board of a religious denomination, is to equalize, as nearly as possible, the financial support of the member institutions.

A fourth and final reason for analyzing expenditures for instructional purposes is to develop such data as will help convey to legislators and to private donors an accurate picture of the financial needs of higher education.

In the ensuing discussion of the technics for the analysis of instructional expenditures, we shall use for illustrative purposes data gathered since 1951-52 for six New Mexico state institutions of higher education. We shall comment on the relative effectiveness of the various analytical technics and the use made of the resulting data.

WHAT EXPENDITURES INCLUDE

Expenditures for instruction, as defined in the 1935 report of the National Committee on Standard Reports for Institutions of Higher Education and the 1952 report of the National Committee on the Preparation of a Manual on College and University Business Administration, include salaries of college or divisional deans, faculty members, clerical employees, instructional supplies and equipment, and other departmental expenses. The last subcategory, other departmental expenses, consists of such items as

staff benefits (if not budgeted under administration and general expenditures) and faculty travel.

The controllers of the New Mexico state educational institutions, by mutual agreement, adhere in all major respects to this definition of instructional expenditures in the preparation of their financial reports. There is one minor difference. The 1952 report of the National Committee suggests that the expenses of the office of the academic vice president (or dean of faculty) be classified under expenditures for administrative purposes. The 1935 report of the National Committee is not clear on where the expenditures for this office should be classified. The New Mexico institutions have chosen to budget the expenditures for the office of the academic vice president under the category of instruction.

The two basic technics of analyzing expenditures discussed in previous articles are applicable to those for instructional purposes. These two technics yield data showing the percentage of total education and general expenditures budgeted for instruction and the amount per student used for this function. Table 1 shows the figures resulting from the application of these two technics to the expenditures for instruction for six New Mexico state institutions of higher learning.

WHY SITUATION EXISTS

Note in Table 1 that the two institutions with the smallest enrollments, "D" and "F," consistently devote a relatively small percentage of total educational and general expenditures to the directly productive function of instruction. This is of considerable concern to legislators, who ask why this situation exists and how it might be corrected. In the final analysis the answer appears to be that small institutions, those with enrollments of less than a thousand students, are inherently less efficient than those with larger enrollments, and the situation can be corrected only as an institution enrolls more students.

The inability of small institutions to devote as great a proportion of educational and general expenditures to instruction as larger institutions was noted in 1932 by Reeves and his associates in their study of 34 liberal arts colleges¹ with enrollments ranging

¹Reeves, Floyd W., et al.: *The Liberal Arts College*, p. 499. Chicago: The University of Chicago Press, 1932.

from approximately 100 to 1800 students. The results of the recent Sixty College Study, which dealt with income and expenditures for 1953-54 for 60 liberal arts colleges, indicates that this is still a budgetary characteristic of small institutions.²

DRAIN ON FUNDS

As was observed in an earlier article on expenditures for administration and general purposes, certain administrative services must be maintained by a college regardless of the size of its enrollment. And the expenditures for these services will take up a greater proportion of total educational and general expenditures in a small institution than in a larger one. Also, in the case of the two New Mexico institutions, "D" and "F," it was noted in another previous article that they were burdened with overexpanded plant facilities that required rather large expenditures for plant operation and maintenance. These forms of inefficiencies, whether avoidable or not, constitute a drain on funds available for instructional purposes.

The six institutions combined regularly manage to get approximately six out of every ten dollars expended for educational and general purposes into the directly productive function of instruction. This appears to be about as high a ratio as can be maintained in institutions with enrollments that permit economical operation.

The data on amount per full-time-equivalent student for instructional purposes, shown in Table 1, are useful in answering questions pertaining to the equality of support among institutions. The New Mexico Board of Educational Finance operates on the

principle that each of the state institutions should be given sufficient financial support to develop and maintain instructional programs of similar quality, taking into account the academic level, undergraduate and graduate, and the extent of professional and highly technical curriculums. In other words, any program offered at one institution should be supported at a quality level approximately the same as that of comparable programs in the other institutions.

Any wide variations in expenditure per student must therefore be explainable in terms of differences in such factors as level and type of instructional programs and size of enrollments. For example, institution "F," which consistently expends the highest amount per student for instruction, has too small an enrollment to permit economical operation. It has a very low student-faculty ratio and a high proportion of classes enrolling fewer than 10 students. Its curriculum consists exclusively of undergraduate and graduate programs in several highly specialized fields of technology.

CONTRIBUTES TO VARIATIONS

Another factor that contributes to variations in expenditures per student among the New Mexico institutions is the differential rates of enrollment increase over a two-year period. The appropriations for the New Mexico educational institutions are made biennially, and by the second fiscal year of the biennium an occasional glaring instance of inequality of support becomes evident because of enrollment changes that were unexpected or unprovided for.

An example of this is the amount per student for instruction at institution "E" for 1954-55. In the late fall of 1952, when the legislative budget requests were being prepared, not

even the most optimistic official at institution "E" would have seriously suggested that between the fall terms of 1952 and 1954 there would occur an enrollment increase of 34 per cent. During the same period several of the other institutions also experienced large increases in enrollments, although by no means as great. This situation of inequality in support was to a large extent corrected by the 1955 legislature, as evidenced by the data on expenditure per student budgeted for instruction for 1955-56.

REQUIRES CHANGE

There still remains much to be done, in the New Mexico procedure for equalizing the support of the collegiate institutions, to correct for this factor of unexpected enrollment increase. This probably requires not so much an improved technic of budget analysis as a change in method of making legislative appropriations.

We wish to caution the reader against concluding that the New Mexico procedure of equalizing the support of the state colleges and universities is to appropriate sufficient funds to enable each institution to maintain a given level of expenditure per student. The procedure of which we speak is a much more complex affair. The value of the figure on expenditure per student for instruction for a given institution lies in the fact that it constitutes a summary, or gives a quick picture of the adequacy of support for this function relative to other institutions. In our experience, the figure is a good *subsequent* check on the soundness of the procedure that has been used to develop the instructional budget. Information on expenditure per student is treated as a result of the procedure, not as its starting point.

(To Be Continued Next Month)

²National Federation of College and University Business Officers Association, Sixty College Study: Income and Expenditures for 1953-54, p. 39.

Catering Service

... is a problem frequently faced by a college or university food service department. In the May issue, T. W. Minah of Duke University will tell how catering service there has proved to be a successful and profitable aspect of food service operation.

**College and
community have
grown friendly
through use of the
much admired
Student Arts Center
building designed
for Sarah Lawrence
by Marcel Breuer**



A mother and her three junior theater-goers.

Three Years' Use Shows Sarah Lawrence's Student Arts

WHEN SARAH LAWRENCE COLLEGE planned a new Student Arts Center, one of the most important considerations was the use to which the new building could be put by members of the community who live in Bronxville, N.Y., and in the whole surrounding area of Westchester County. An advisory committee was immediately formed of people interested in the college who lived in Westchester. Even before the building was complete, this committee assembled to discuss the various community needs to be met by the arts center.

Over the years since the college was opened in 1928, persons living in the vicinity had been invited to occasional concerts, lectures and theater productions. But because of the lack of space and the inadequate auditorium at Sarah Lawrence, it had never been possible to invite the community to enter

fully into the college program. Consequently, few neighbors had opportunity to come to the college and see what was going on, or to enjoy the college programs held for and by the students and faculty.

The new building was formally dedicated and opened for use in November 1952. By the following spring, a list of several hundred names of neighbors had materialized from various sources. The college did not solicit names or promote a community program. Instead, it waited to be asked, and most of the people on the list are those who requested receipt of notices of college events that are open to the public. Now, after three years, the list has more than a thousand names, even though the people on it have been periodically polled to see if they wish to continue as informal members of the college community.

Thus, throughout the last three years performances in theater, music and dance, lectures and debates, chamber music concerts, and children's programs have consistently played to audiences having a sizable representation from the community. Each person on the list receives the College Calendar, sent out approximately five times a year, plus post card announcements of special events.

Programs open to the community range over a wide spectrum. A sampling includes a debate between Republican and Democratic congressmen on the McCarthy issue; three concerts by the New York Chamber Repertory Group under the leadership of Daniel Saidenberg; an exhibition of German Expressionist painting; a lecture on "The Poet Today" by Louis MacNeice; an evening of entertainment for the alumnae fund featuring Alice Pearce



Saturday morning programs attract large numbers of children.

Center to Be More Than a Building

MARTIN E. GORMLEY Jr.
Assistant to the President, Sarah Lawrence College

of "Dear Charles," "Almanac," and "Gentlemen Prefer Blondes"; a talk by Roy Wilkins, head of the National Association for the Advancement of Colored People on desegregation in public schools following the 1954 Supreme Court decision; a joint theater, dance and music performance of Purcell's "Dido and Aeneas" performed by Sarah Lawrence students; jazz concerts featuring Bud Freeman, Rex Stewart, and other well known jazz musicians; a debate between Telford Taylor (for Stevenson) and Walter Williams (for Eisenhower) during the last presidential campaign; a talk by Julian Huxley on "Evolution and Human Destiny"; a series of scenes from contemporary plays ranging from "Mourning Becomes Electra" to "The Moon Is Blue" produced, directed and acted by theater students; joint choral concerts given by the

Sarah Lawrence chorus and the Williams and Harvard glee clubs, and a number of Saturday morning programs for children.

The children's programs deserve special mention. They have been exceptionally well attended, starting with the first program, when more than 500 boys and girls in the 4 to 10 age group filled the Student Art Center's auditorium to capacity. Most of the programs have been musical plays written and acted by Sarah Lawrence theater students specifically for children. Many a mother has come to look on these productions as valuable educational experiences and cultural adventures.

The most recent innovation in the college program for neighborhood children is a series of children's dance classes. Two groups were formed, and the suspected interest in such classes

was confirmed when both classes were filled two hours after registration began. Art and music classes for children will follow when administrative and teaching arrangements are made.

The Westchester advisory committee, now numbering 75, still meets regularly and has been active in suggesting and helping to carry out a number of projects, particularly the chamber music concerts. The committee has worked out a regular series of adult education courses in literature, philosophy, psychology and politics, with a discussion group in the latter.

Architect Marcel Breuer has not only given Sarah Lawrence a model of contemporary design but in the Student Arts Center has provided a basic medium for communication between the college and its neighbors. The building is a real contribution to community and campus life.



For Women's Social and Recreational Activities

GERTRUDE DORETY

*Former National News Editor
Syracuse University
Syracuse, N.Y.*

SYRACUSE UNIVERSITY's Women's Building (above) covers an acre of ground and cost \$3 million. In the foreground is the pool, one wall of which is entirely of glass, protected by a patio wall. Right: The main gymnasium of the new building, entered from the second floor lobby, is 35 feet high.



THE NEWEST ADDITION TO THE CAMPUS of Syracuse University is a \$3 million Women's Building, designed to meet the specific educational, social and recreational needs of women.

The building has its luxurious features, and, although planned for women, it does not isolate them from the men on the campus. Men come to the building for joint committee meetings, several classes, dances, bowling, and other planned events.

The building covers an acre of ground and contains two beautifully decorated lounges, a dance studio unit with its own stage, a pool that gives the appearance of being almost outdoors, a gymnasium-auditorium and a second gymnasium, a sun deck, and a complete body mechanics unit.

Offices for the dean of women's staff and the department of physical education for women are housed in the building, as are headquarters of important women's groups on campus.

Lorimer Rich and Associates, the architects, took full advantage of the surrounding landscape. Although the building is a part of the main campus, it is located on a large tract that

includes a playing field for women. The building faces streets on two sides; a hill rises in the rear. H. A. and F. C. King were associate architects for the building.

Since the entire physical education program for women is carried on in this building, it is interesting to note how the philosophy of the department has changed in the past half century. At that time emphasis was placed on dumbbell drills, wand drills, precision marching, rope climbing, and heavy muscle building gymnastics. Today the department stresses social activities over purely competitive sports. As much emphasis is placed on mental, social and emotional development as on acquiring neuro-muscular skills and increasing physical well-being.

The department's program is divided into three areas—one for students enrolled in the professional preparation program, another for students taking physical education courses on an elective or required basis, and a third for Women's Athletic Association activities.

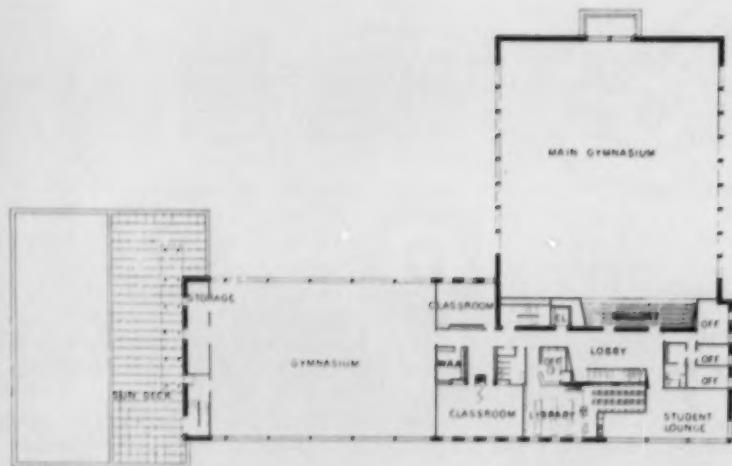
Students coming toward the Women's Building see an attractive brick structure, trimmed with Indiana limestone. They open one set of glass doors to step into the vestibule and another to enter the first floor lobby. They see an attractive room with travertine walls and a light tan terrazzo floor. Cove lighting is soft and pleasant. A high mirror covers a large section of one wall.

At the right of the front entrance is the suite of offices for the dean of women's staff. Here women students bring their personal problems and those related to housing, vocational counseling, and full-time and part-time placement. Both men and women come to this office for social education and activity planning. Arrangements for colleges, departments and campus groups to use the facilities of the new building are made here also. Like other offices in the building, the walls are lightweight concrete aggregate block, painted in vibrant pastels.

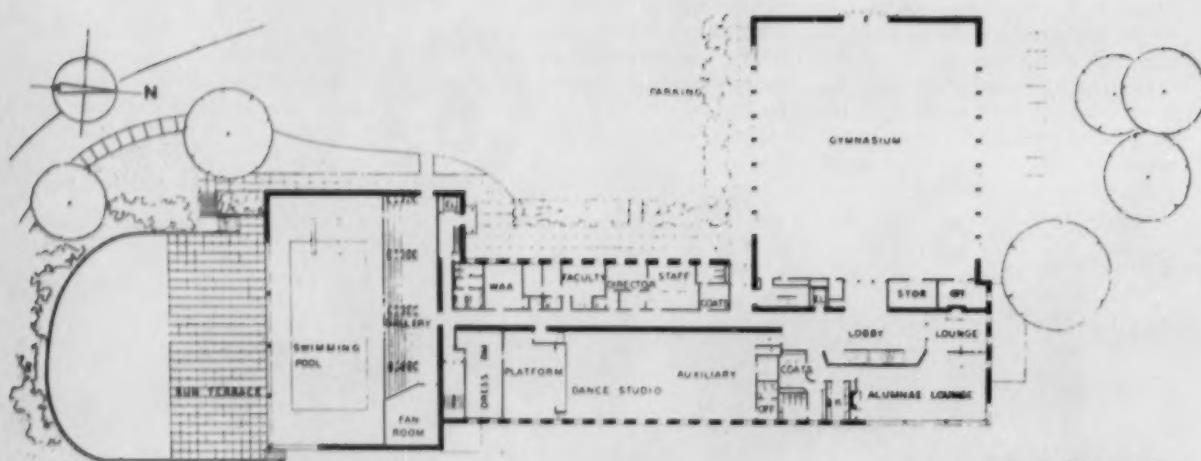
Immediately opposite this suite is the complete body mechanics unit.

An 8 foot high mirror runs along one wall of the dance studio.

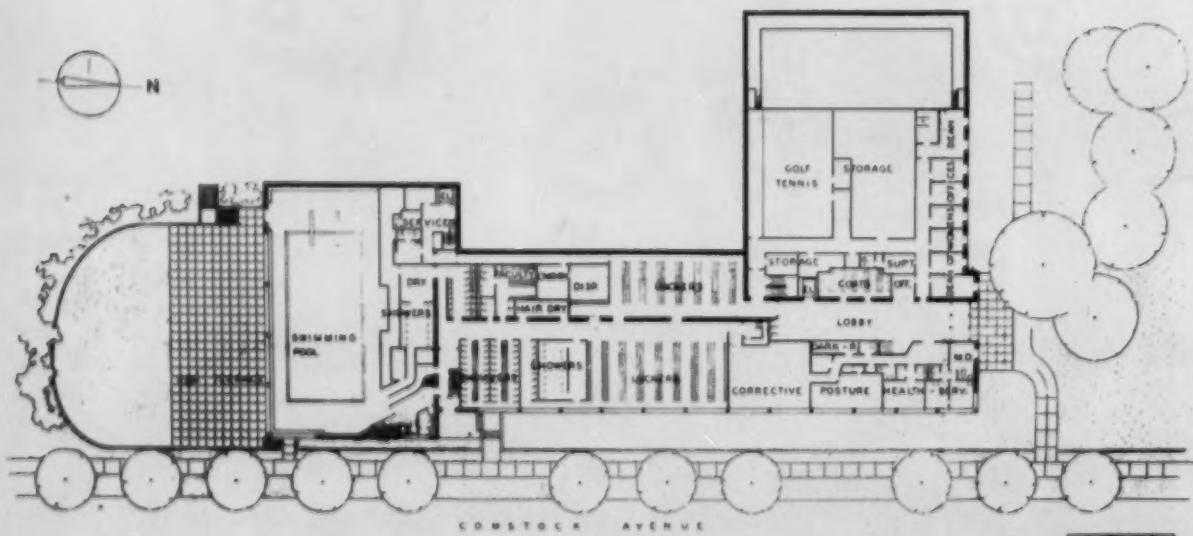




Third floor plan



Second floor plan



First floor plan of Syracuse University's new Women's Building.

Included are a treatment room, examining room, waiting room, and office for the health consultant and staff member in charge, a photography room for posture pictures, an activity room for exercises, a restroom with six beds, and a classroom.

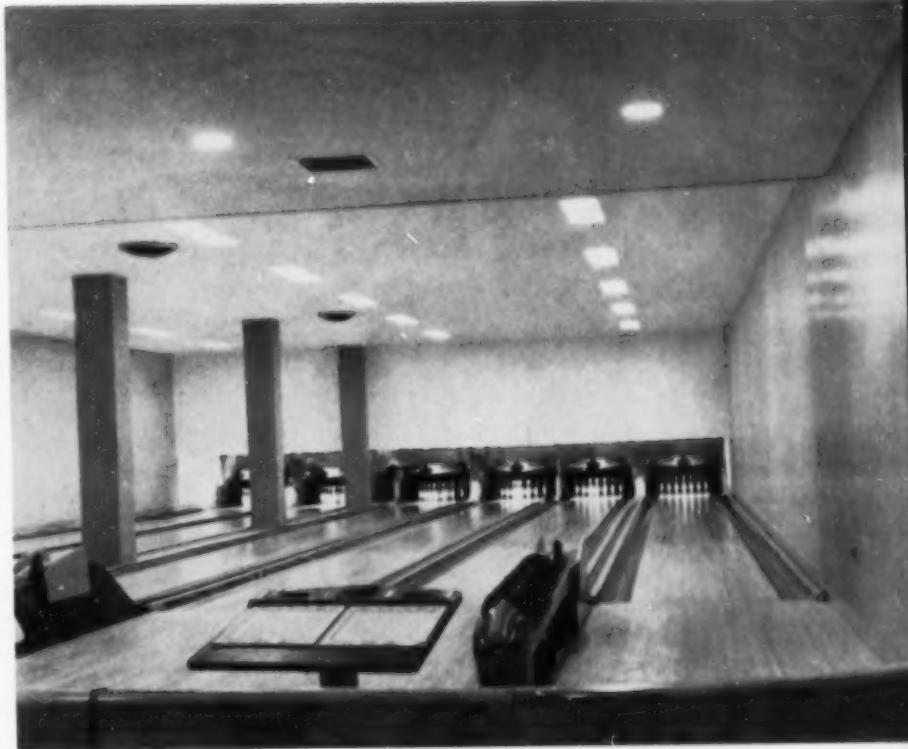
The pool, of course, is the main feature of the first floor. It is 75 by 35 feet and seems to be outdoors, since one wall and part of another are entirely double glazed, heat resistant glass. A small walled-in patio surrounds the end of the building in which the pool is located, giving privacy to the swimmers. One side of the pool contains a recess for a canoe used for water safety demonstrations and similar purposes. An underwater observation window in the basement allows instructors to check diving and underwater technics. By use of a special public address system, these instructors can pass their criticisms along to another instructor standing on the pool deck.

Women visiting the building for the first time remark about the light, cheerful locker room area. The salt glazed tile walls are green, dark green and gray, and the floor is gray terrazzo. The area contains a laundry; separate locker sections for different groups; individual, stall and group showers; a dispensing room for towels and suits, and supply and storage closets. Residents appreciate the shampoo room, complete with special spray attachments and driers.

A recreation room on the first floor makes indoor golf possible and provides another area for tennis. This room is used also for cheer-leading practice, fencing and folk dancing. Many campus groups use this room regularly.

The second floor of the building also has an attractive outside entrance, which leads directly to the landscaped parking lot. This second "main" entrance is possible because of the sloping site.

The gymnasium on the second floor is used for convocations, dances and other major events, as well as for sports. It is unusual for its size, light and beauty. Windows take up more than half the wall space on two sides of the high room (35 feet). Even the entrance doors are glass. The wainscoting is brick with lightweight concrete aggregate block above. Lights are recessed in the acoustical tile ceiling. Spectators can watch games from the gymnasium balcony, which is entered from the third floor. Markings for



Above: One of the most popular spots in the new Women's Building at Syracuse University is the bowling alley, which has semi-automatic pin setting devices. The six alleys are available to students and university personnel for recreation and league competition. Below: The building is truly a social, recreational and educational center.





two full-size tennis courts, three basketball courts, six badminton courts, and three volleyball courts are superimposed on the gymnasium floor.

One of the showplaces in the building is the paneled lounge on the second floor, named in honor of alumnae who planned and worked for this building for half a century. Features are its glass block entrance, a glass baffle separating the room into two sections, a terrace that overlooks the playing field, marble window ledges, and two brick fireplaces. Various groups reserve this room for teas, meetings and social events. A kitchen, powder room, and coatroom adjoin it.

The dance studio unit, also on the second floor, includes a recessed studio with an 8 foot mirror running the entire length of one wall, a fully

Left: The glass block entrance to the alumnae lounge on the second floor of the Women's Building. Below: The pool gives the appearance of being outdoors since one wall and part of another are entirely of windows. The 35 foot pool has a three-meter and a one-meter diving board. Access to an underwater observation window is gained through the basement.





Above: The library of the Women's Building has a mezzanine at one end for books and periodicals on health, physical education and recreation. Books of general interest are kept in stacks and in bookcases along the wall on the lower level of the library.

equipped stage, and a dressing room. Like other sections of the building, this unit serves the second function of providing facilities for social events and other programs.

Headquarters of the department of physical education for women, additional staff offices, and a board room for all-university committee meetings also are located on the second floor. The pool balcony is at one end of the birch paneled hall.

City women attending the university have a lounge of their own on the third floor of the building. It, too, has an entire window wall. Students can relax there or make hot meals in the kitchen at one end of the L-shaped room. Matchstick curtains obscure the kitchen. Like many of the other rooms in the building, one wall contains windows along its entire length.

The library on the top floor is designed for both relaxation and serious study. Books for browsing are in built-in bookcases along one wall and

in stacks at the lower level. Health, physical education and recreation texts are located in the library's mezzanine.

The same features that make the large gymnasium attractive are found in the smaller gymnasium on the third floor, which is reserved for professional students' classes and instructional program classes. It is 22 feet high. Oak wainscoting is used, and on two sides windows cover the remainder of the walls. A pale sea green acoustical block is used on the other two walls. Three volleyball courts, a basketball court, a tennis court, and four badminton courts are marked off on the floor.

The Women's Athletic Association, which is the heart of the student voluntary program of sports, dancing and aquatics, has an office and board room on this floor. Panhellenic and Women's Student Government, two other major women's groups on campus, also have offices there. Opposite the balcony of the gymnasium are trophy cases built into the oak paneled hall.

Bowling alleys are in the basement. The bowling room is attractive with maple paneling and an asphalt tile floor.

The basement also houses three large tanks that serve as filters for the pool water, each capable of handling 250 gallons per minute. Supply and exhaust fans are located in the basement, except for a special fan room in a penthouse, which is part of the ventilation and heating system, and another fan room next to the pool balcony.

A portion of the roof has been turned into a sun deck. The building has both a passenger and a service elevator.

The new structure gives women students physical facilities equal to those of the men and replaces the gymnasium inherited from the men in 1907. Funds were raised over a period of years by the Syracuse Alumnae Club and by the university through its current building and development fund campaign.

**How one urban campus
has satisfactorily solved
the problem of**

PARKING LOT CONTROL

H. W. PEARCE

*Superintendent of Buildings and Grounds
University of Illinois, Chicago*

COMPLAINTS ABOUT INADEQUATE
parking facilities outnumber all other
complaints received by most superin-
tendents of buildings and grounds. To
provide adequate parking facilities
economically is to a large extent de-
pendent upon good control of persons
having access to the lots.

Urban universities and colleges are
confronted further with the high cost

of land for parking. It is economically
difficult to police parking lots so as
to realize full parking capacity. As
an experimental step to reduce cost
in the control of parking lots, the Uni-
versity of Illinois has installed park-
ing lot gates.

A further complication exists if the
college is surrounded by institutions
of a similar nature, as is the case in

the Medical Center District on Chi-
cago's near west side. Staff members
of one institution will use the lots of
a neighboring institution unless they
are prevented from doing so. At the
Chicago Professional Colleges of the
University of Illinois, we have com-
plaints of violations involving our
teachers' using parking lots belonging
to another school, as well as that of
intruders in our lots.

Without a full-time attendant, it is
difficult to enforce parking regulations,
especially for universities that have
part-time teaching physicians coming
and going throughout the day. Unless
the rules are impartially enforced, a
system of fines or other measures only
leads to louder complaints, and at
times to the loss of a teaching physi-
cian. Full-time attendants are prac-
tical only for larger lots, because the
cost per car becomes prohibitive.

Being in a semi-slum area further
complicates our parking lot problems.
Transients sometimes break into parked
cars looking for money, and doctors'
cars are singled out by addicts search-
ing for narcotics. Losses can be in-
curred even with frequent patrolling.
Therefore, our newer parking lots are
enclosed with a chain link fence from
5 to 6 feet high and have mercury
vapor lighting of 1 to 2 footcandles.
These features combined with a semi-
automatic gate and nonscheduled
patrolling give maximum protection
at minimum cost.

Our professional campus has seven
parking lots accommodating from 28
to 160 cars each, with a total capacity



University of Illinois' Professional Colleges' parking lot on Chicago's west side.



Without leaving his car, the occupant is able to insert his card into the slot of the electronic control device and the gate opens automatically.

of 600 cars. The total minimum capacity should be 1100 cars, so it was with much interest that the potential benefits of electrically operated parking lot gates were considered. Such gates function either with coins or with keys. We are using keys at the Chicago professional campus.

The "key" is a plastic laminated card for which a deposit of \$1 is required. Each card bears the same number as the windshield decalomania issued to that person as a university parking permit. In the event an unauthorized person uses the lot, the police in their routine check can easily determine that the car in question does not have the right to park in that lot.

MASTER KEYING ESSENTIAL

Master keying is essential, especially for police cars used to check the various lots. One gate manufacturer's key assembly allows a daytime group of lot users to gain entrance with one key; another key in the same assembly provides access at night only. A third type of key gives access both day and night. Some key assemblies work only for a set period, such as a month, school quarter, semester or school year. This makes it possible to sell cards or keys to faculty, staff and students if that is the institution's policy.

A gate controlled parking lot where most of the occupants enter in the morning and leave late in the afternoon needs only one gate, with provisions to install a second gate if it becomes necessary. If there are only

a few night classes, the average institution can leave the gate open during the afternoon exodus period, allowing more rapid movement from the lot.

The sequence of operation for our installation begins with the automobile's being driven over the treadle at the entrance. The treadle actuates a relay that is completed when the key card is inserted into the unit head reached through the driver's window. That insertion closes the second relay, which opens the gate. The gate is stopped at the top of its lift by a limit switch, which energizes the third relay. As the automobile passes over the second treadle, the fourth relay is actuated, closing the gate. To exit, the operation is reversed.

In such an in-and-out gate, the exit side could omit the key pedestal so that when an automobile passes over the first treadle as the car is driven out of the lot, the gate mechanism would be actuated without the key card being used. But this arrangement could be operated by a person jumping on the exit treadle to open the gate for entering. The car would then exit in the normal manner.

POSSIBILITY OF CHEATING REDUCED

Our type of installation reduces the possibility of cheating by two cars entering the gate in quick succession and exiting at the same time, because the gate arm descends immediately after a car has passed over the inner treadle. An attempt to beat the gate would certainly involve breaking the gate arm.

In an installation using both an "in" and an "out" gate, a treadle to close the gate after the car has passed through is all that is needed. Activating the treadle will not open the gate; it is opened only by the key card unit ahead of the gate.

Our first installation was for a new lot to accommodate 58 cars. The lot was planned for the exclusive use of part-time faculty members, of which there are more than a thousand. Further, it was limited to those instructors who were not on the campus more than half the time and for not more than four consecutive hours. This small lot has proved adequate to the point where its use has been greatly expanded to include some full-time department heads. Economical control of the lot would not have been possible without a gate system.

After a full school year of the gate-lot operation, parking complaints from part-time faculty members disappeared, with numerous statements commending the installation. The gate is opened by a university policeman on his rounds of checking cars around 4 p.m., so occupants may leave more quickly in the late afternoon hours.

The maintenance cost during the first year of operation was negligible.

A second installation for a lot accommodating 75 cars has been completed at a staff apartment building. In this case, the concrete base was raised to act as a bumper guard, thus reducing the chance of cars breaking off the key pedestal. Before the gate was installed at this lot, the space was almost always filled by outsiders' cars. Some 70 key cards have been issued for it, and the lot is apparently more than adequate for those authorized to use it.

The initial cost for a gate installation is less than the salary of a full-time attendant at one lot for six months.

Gates are not a cure-all to parking lot problems, I believe, but they are one of the most effective means of controlling use of an unattended lot.

Paint Performance, First Class

Select a specialized paint for the job to be done.

Treat the paint well from the time you get it until you apply it.

Use as much care in preparing the surface as in applying the paint.

WALLACE A. MOYLE

Supervisor of Buildings and Grounds, University of Connecticut

WELL DESIGNED PAINTS ARE CAREFULLY engineered and tested materials. When used to meet conditions for which they are designed, they will perform within rather definite and measurable limits. When employed to meet conditions that exceed their design, they will probably "fail."

The architect designs the columns, girders and other parts of a building surely and completely to withstand not only the floor loads but *all* stresses. He allows a factor of safety. This having been done, no one is permitted to tamper with his design and the building stands on through the years. It is now time to treat paint systems in the same way—to design them to more than meet all the conditions they will encounter and then hold rigidly to the paint system needed.

These conclusions emerge from the mass of information accumulating as studies continue into the subject of selecting and buying paints.* They emphasize the need for understanding the capabilities and characteristics of each material and for complying with the manufacturer's, not the salesman's, instructions for handling and using it.

ESTABLISH FUNDAMENTAL ELEMENTS

As research and experiments have progressed several fundamental elements have been established. The most important of these seem to be: (1) the need for establishment of practical painting standards; (2) determination of a material's characteristics to support each standard; (3)

selection of materials having proven formulations and performance; (4) proper handling and use of materials; (5) proper workmanship.

The painting crew at the University of Connecticut is composed of an average group of skilled painters. Each of its members does a creditable day-in-and-day-out job. Some are more experienced than others. A few can be classified as master painters in that they understand the mixing of colors, the inherent properties of most commonly used paints, their components and supplementary materials, the preparation and suitability of surfaces and equipment. Others do a very satisfactory job of preparation and application but have only a general understanding of the other elements of the painting trade.

All members of the crew at the University of Connecticut have responded favorably to the information presented on methods, materials and objectives of the experiments undertaken during the last eight years. On-the-job instruction has included the "what, when, where, why and how" of each material used, much of which is not ordinarily explained to institutional painters. Results indicate rather conclusively that even a little interesting instruction pays obvious dividends in better performance of materials and better workmanship. When substantially the entire problem is discussed, the tradesman invariably can be relied upon to take a dependable part in its solution.

Entirely aside from inspection of jobs, it is vital that the painter in university life have a real conscience and

that he use it. He should feel that the university is just as truly his as it is that of any alumnus or faculty member.

Materials of the highest order can be rendered quickly inferior by improper handling, use and application. Relatively poorer items may give a satisfactory performance with careful and intelligent use. Since Items 1, 2 and 3 were discussed in detail in previous issues, they will not be reviewed here. The purpose of this article is to present some observations concerning the proper handling and use of paints and proper workmanship.

NO ONE PAINT FULFILLS ALL NEEDS

As yet no one paint will fulfill all painting needs, but there are an appreciable number that will meet specific requirements. A large number of well known manufacturers allocate sizable sums of money annually for design, laboratory and field testing, and marketing of carefully and soundly engineered products. They know what each of their products will accomplish and the conditions under which each can be successfully used. They know how each material must be handled and what the results of mishandling are likely to be. They can describe quite well the manner in which each item must be applied and the condition of surfaces to which it will properly adhere.

It may be well to define the terms "handling" and "use." By "handling" is meant the manner in which the material is treated from the time of receipt by the user until its application. By "use" is meant the selection

*Moyle, Wallace A.: Selecting and Buying Paint, College and University Business, 18:59, 42 (Jan., Feb.) 1955.

of the material designed to perform properly during and after application. Proper workmanship includes preparation of the surfaces as well as good mechanics in application.

It is difficult to overstate this. The paint goes onto a surface. The result depends on both painter and surface. Few painters will paint over wet wood or cement or some equally obvious error, but many will do paint over surfaces where the old paint is in the process of detaching itself from the surface. They cover this up. It is absolutely vital to paint only over a sound surface. By and large, more time in preparation of surface is a current need.

If paint could be applied at the point of manufacture, that is, just as soon as it comes out of the final manufacturing operation, the amount of handling would be reduced to a minimum. The longer the elapsed time between the final mixing and its use, the greater the handling required.

Paints in storage are subject to a progressive separation of components resulting in settlement of pigments and the tendency to form "skins" over the surface. Some are more prone to these than others. Storage places should be dry and warm. If shipments can be made directly from the factory to the final user, it is probable the time in vendors' storage will be at a minimum. More important, however, is the necessity for using first materials that have been longest in local storage. The objective should be to consume all paints in storage not later than six months after receipt. This will substantially reduce the tendency of pigments to settle and surface skins to form.

SAVINGS MAY BE DISSIPATED

After this length of time the apparent initial saving gained through quantity purchases may be dissipated by the greater cost of redispersing pigments and removing skins and otherwise properly preparing the paint for use. Under some conditions it may be necessary, in addition to agitating or stirring, to strain the paint to assure complete removal of skins and undispersed pigments.

This condition may be mitigated to some extent by careful storage procedures. Inexpensive mechanical agitators are available that redisperse the contents of a container by shaking. It might be well to consider such a piece of equipment and require any item not issued from stock at the end of

six months to be agitated and returned to the shelf. As a matter of fact, it will help the man on the job if all paint is given a thorough "shaking" in the warehouse at the time of issue.

When the container is opened on the job, the first operation is to remove any skins that have formed. The purchasing requirement that "any skins that have formed be removable in one unbroken sheet" is important. If the skin breaks and all of it is not removed, it may be necessary to strain the entire contents of the container to remove the small pieces. This takes time and reduces the designed formulation to the extent of material remaining in the strainers. It may be necessary also to strain the material if the settled pigments clot and if these clots are not broken up and thoroughly mixed.

The next step in preparation is the thorough redispersion of settled components. This is a very necessary operation. Unless the pigments that have

er's label on each container shall include instructions for thinning, and care must be taken to see that these instructions are followed by painters. The amount of thinner being added must be measured and not guessed at. The practice of allowing a painter to thin a paint until it meets his "feel" will result in an uneven performance and may destroy the design of the product. Insist that the thinner when added is in measured quantities and does not exceed the manufacturer's instructions unless he is consulted first.

ANALYZE TABLE

Analyze the table on page 50 for it indicates how easy it is to reduce or to destroy the design of a good product by failure to understand and control overthinning. The net result is summarized in the column "% Loss in Durability, Hiding and Performance" and varies from 25 to 50 per cent. This may explain the failure of many reputable paints; it emphasizes the necessity for complying with the manufacturer's instructions to assure proper performance of his products. Too much thinning impairs a paint in the following ways: sealing ability, flattening, lack of hiding power, bleeding, sagging, flashing of a flat paint over a priming coat, mottling, breaking over sharp edges, and, in some cases, need for an additional coat.

Even if a paint can take more thinning than manufacturer's instructions indicate, the painting standard may be violated if it is thinned beyond a certain point. For example, if it is decided the dry paint film required safely to support a painting standard is that film resulting when 500 square feet per gallon of surface is covered, any appreciable variation from this figure will change the standard, and the purpose for establishing the standard will have been reduced or negated. Under certain conditions paints can be extended to give initial coverage over a greater area, but this results in a reduced dry film that may not be expected reliably to give the service that the standard is designed to achieve. Remember, too, that you establish the standard. The manufacturer supplies the material to support that standard.

If the standard is reasonable it will have been concurred in by several, but certainly not all, of the manufacturers with whom it was discussed at the time it was established. If it is found that several reputable manufacturers concur, you have established several



settled are thoroughly redispersed, the material will not have the characteristics it is designed to have. This is the reason for the purchasing requirement "that all settlement be soft and easily redispersible." It is particularly important when 5 or 10 gallon containers are purchased and where material is poured into gallon cans for ease of handling on the job. Each time the small can is to be refilled, the material in the larger container must be stirred to make sure of proper mixing. Too, the material in the small can should be stirred to blend the old mixture with the new.

Containers should be covered when not in actual use. This is particularly important at night and in warm temperatures to reduce evaporation of the thinner and to reduce the formation of skins.

Proper thinning cannot be too strongly stressed. The purchasing description for the paint should contain the requirement that the manufacturer

What Happens to Paint When Amount of Thinning Is Excessive

Paint Products	% Solids of Volume	With Normal Thinning Label Directions			Effect Thinning With Extra Pint of Min. Spirits to Gal.			% Loss in Durability, Hiding and Performance
		Storm Viscos. KU	Spread Sq. Ft. per Gal.	Film at This Rate in Mils	Storm Viscos. KU	Spread Sq. Ft. per Gal.	Film at This Rate in Mils	
House paint undercoat.....	68	88	450	2.4	65	650	1.7	{ 40
House paint finish coat.....	76	93	550	2.2	65	800	1.5	{ 40
One-coat house paint (heavy) ..	83	95	400	3.9	65	{ 750	{ 2.0	30
One-coat house paint*.....	83	95	550	2.7	65	{ 850	{ 1.9	40
Floor and deck enamel	40	75	600	1.1	55	800	0.8	25
Trim and shutter.....	50	82	600	1.4	60	800	1.0	35
Enamel undercoat.....	49	82	550	1.4	55	850	0.9	50
Nonyellowing enamel	58	78	550	1.7	60	800	1.2	40
Plaster primer and sealer.....	48	100	550	1.4	60	850	0.9	50
Velours flat wall paint	50	90	600	1.4	60	800	1.0	30
Zinc dust primer for metal.....	70	68	500	2.2	55	850	1.3	40
One-coat semi-gloss enamel...	52	77	500	1.7	60	800	1.1	40
Spar varnish.....	40	"E"	600	1.1	"A"	800	0.8	25

*This paint is unique in design in that it can be applied in a single brush application to yield a film thickness of up to 4 mils without sagging. It will dry through at 4 mils.

sources for materials that can be relied upon to support the standard. It is quite possible, if not quite probable, that the occasional objection to such a standard arises from offerings of inferior or untested products.

In this and previous discussions reference has been made to film thickness, which is an important element in the "life expectancy" of a paint. The dry film is that part of the paint that remains on the surface after volatile components have evaporated. The thickness of the dry film of any paint can be calculated as follows. There are 231 cubic inches in a gallon. The thickness of the wet film in mils is

231000

sq. in. covered. A paint that will cover 500 square feet will provide

$$231000 = 231000$$

$$500 \text{ sq. ft.} \times 144 \text{ sq. in.} = 72000$$

= 3.2 mils. The dry mils thickness then is the wet film thickness \times % of solids

100 or, for a paint having 68% total solids, 3.2 mils \times 68 = 2176

$$\frac{100}{100} = 2.176 \text{ mils or } 0.002176 \text{ inch.}$$

If paints are used as designed, and in accordance with the requirements of the standard they have been purchased to support, they can be used as a ready measurement of work efficiency. For example, if a one-coat roller applied alkyd is used at a rate of 450 square feet per gallon and if there are 50,000 square feet to be painted, the amount of paint and thinner can be quite accurately determined. It will be approximately 111 gallons to which should be added about 10 per cent for spillage, loss in mixing, and so forth, or 120 gallons of paint.

As each painter will use about 1.6 gallons per day (including preparation and painting of trim) it can be estimated that 120 or 75 days of labor

1.6

will be required to do the job. If three men are assigned the job it will take about one calendar month. A check on the quantity of paint used and area covered after one or two days will give a quick check as to whether or not the proper standard is being followed. A check at the end of the week can be made quickly to deter-

mine the level of performance. The whole operation can be planned in advance, production goals established, and checks quickly applied.

A word about square foot coverage as advertised by the manufacturer. It appears this is a figure established in the laboratory. While it is a true figure, it is based upon application of paint to a smooth surface black and white checkerboard card a square foot in area. The amount of paint by weight required to provide complete coverage on the card is divided into the total weight of a gallon of paint to get the coverage in square feet. This is actually a maximum figure under the best possible conditions.

The area covered per gallon will be smaller as the surface being painted is rougher. Actually the total area covered may not be appreciably less if the actual area of the exposed surface can be calculated. For example, consider a sand finished ceiling in comparison with a smooth hard finished ceiling. If the exposed surface of each granule of sand projecting below the basic plane is considered, it is obvious

the area calculated merely by taking the product of the sides of the room is not accurate and is substantially smaller than the surfaces to be painted. It will be necessary to make allowances for rough surfaces and not to try to get the maximum coverage as calculated for a smooth hard plaster surface for other types of surfaces.

Probably the most important element of use is the selection of the proper material for the job to be done. Modern paint chemistry has produced an increasing number of "paint type" coverings to meet the many special conditions encountered in this major phase of maintenance. For example, it is now possible to apply certain materials to certain surfaces that are still moist with assurance the paint will stick. Rust inhibitors permit paints to be applied to surfaces with some rust on them with assurance that oxidation will be neutralized and the paint will "stay put." Soft paints, such as a flat lead and oil paint, obviously will not give satisfactory service if used on floors and will not be as satisfactory on interior walls that require repeated washings as will the alkyl resins and some of the newer resin emulsions.

SATISFACTORY SUBSTITUTES

On the other hand, certain modern paints such as the epoxies may be satisfactory substitutes for more expensive bathroom or dairy barn wall coverings. The transyls, another form of vinyl chloride plastics, appear to offer a solution to the annoying problem of protecting walls at the chair rail level or of eliminating the drying and curling of calking compounds on skylights. Polyvinyl acetates, which are now beginning to appear, promise very satisfactory performance as primers and probably as exterior finish coats for cinder block, cement block, and other masonry surfaces. The use of silicones as a component of, or as a final application over, ceiling paints in showers and kitchens seems probable.

Regardless of how specialized the paint may be, it should not be used to cover up a basic structural defect. If paint is peeling on an exterior wall the fact that it may be possible to find a material that will stick is not the answer to the moisture condition originating under the exterior paint. That moisture is going somewhere. If the paint can withstand the hydrostatic pressure from within and the moisture cannot escape in that direction, it most

certainly will find another outlet. Its source must be found and corrected. The statement "Save the surface and you save all" is not tenable. All you save is the surface and the appearance and for probably only a short time unless the condition is thoroughly analyzed and the cause for unsatisfactory paint performance is corrected.

Proper use of materials can be determined to a dependable degree during the establishment of painting standards. As a matter of fact, painting standards cannot be reliably established unless careful consideration is given to the surfaces to be covered and unless structural conditions involved are carefully evaluated. In determining the characteristics of materials required to support a standard, the limitations of the material must be considered as well as its design and engineering. Since this process involves discussions with several manufacturers, it is most probable the negative as well as the positive consideration will be listed and well may be included in the manufacturer's instructions for use of each material.

Finally, the item of workmanship. The proper preparation and application of the material are essential. Preparation of surfaces and application of paint to them are equally important. The craftsman who is proud of his work recognizes this and actually may spend more time on the preparatory operation. To the "dauber" painting is just "putting it on, making it look good, and hoping it will last."

MUST LEARN TO ADJUST TECHNIC

The painter must learn to adjust his technic to the material and not expect the material to be adjusted by thinning to fit his particular ideas. It is probable the same type of paints manufactured by different companies will be somewhat different. One may spread more easily than another or the lap time may be longer or shorter. One may flow better after application to smooth out brush marks. Although their viscosity numbers may be the same on the scale, one paint may sag and the other may not. It is probable, if the major characteristics are substantially the same, the long-range performance will be substantially the same.

For this reason it is preferable that the same brand of paints be used for each type of painting so that, having acquired the ability to use it, painters are not upset by having to become

familiar too often with products of a different manufacture.

One interesting observation has to do with the use of paint rollers. In a large crew a more nearly standard result is obtained with rollers than if brushes are used. In many instances where surfaces are rough or porous it has been found that the roller rolls the paint "in" as well as rolling it "on."

SELECT PROPER ROLLER

As with brushes, rollers must be selected. One with too short a nap will produce small parallel ridges that, although not too obvious, will make washing rather difficult. Long nap rollers can be used effectively for chain link fences. The selection of a suitable roller is necessary to assure proper roller workmanship.

With heavy paints, such as the newer one-coat house paint, it is essential that the workman be required to use the material properly. These paints are designed to cover at a rate of 3.5 mils (0.0035 inches) to 4 mils (0.004 inches) dry film. Some of them spread easily but as the job progresses it will be discovered that coverage is at a rate of only from 325 to 375 square feet per gallon for paints rated by the manufacturer at from 500 to 550 square feet per gallon. The painter must experiment with the amount of paint he lifts out of the container on each brushful and with the amount of pressure he applies to get the tip of his brush deeper into the initial application to spread the mass rather than just move a layer of the material off the top. This is a matter of adjusting technic to material.

It is not the purpose of this discussion to present the technic of painting. Rather it is intended to indicate that if the design and engineering of paint products are known and if the limitations of each material are understood, performance can be anticipated with reasonable accuracy if the paint is selected, handled and used properly and if sound workmanship is followed in applying it.

In conclusion, the following statement is a good basis for analyzing the probable performance of any paint: If the product is a regular item of the manufacturer and has been made and marketed long enough for the manufacturer to support his claims for performance, the reasons for apparent failure of the material are more likely to be improper use and workmanship than faulty material.

They Eat in The Barn

**Now a dining room,
building is the most
popular place on the
new Riverside campus.**

HOWARD COOK

*Manager, Office of Public Information
University of California, Riverside*



CAMPUS ADMINISTRATORS CONFRONTED with a need for more eating facilities might well follow the example of the University of California at Riverside—that is, if they also have a vacant barn.

Faced with a 38 per cent increase in enrollment and no time (or funds) to construct a dining hall, U.C.R. Busi-

ness Manager C. B. O'Neill led a crew into an obsolete barn, sandblasted the walls, converted the horse stalls into booths, paved the floor, installed minimum food service equipment—and ended up with the most popular building on campus.

Of course, it wasn't that easy. The barn was 38 years old and required

considerable reconstruction to meet modern safety standards. Sanitary and air circulation facilities had to be installed. Even the roof had to be renovated.

But "The Barn," as it is officially designated and popularly known, has a charm that could not be built in by the best Hollywood designers. Students consider it their own, and carve their initials in the walls as proof. Faculty members, who used to complain about the juke box in the old coffee shop, now have their favorite stalls. In fact, the former coffee shop has been closed for lack of business, despite the hope that professors would welcome it as their private retreat. Visitors return to the Barn just to enjoy the atmosphere, and the good food.

Credit for the idea goes to Robert Evans, chief architect for the statewide university. Lunching with Mr. O'Neill in the coffee shop (capacity 72), Mr. Evans asked where the 700 students expected that fall would be fed. The business manager answered that the university had hoped the traditional



Above: The barn on the University of California Riverside campus as it appeared in 1917. At that time it housed the horses used to draw cultivation equipment through the orchards of the citrus experiment station. Left: The Barn entrance, showing patio tables and, through the windows, the horse stall booths.



An exterior view of the converted barn with its attractive patio.

malt shops and restaurants would be built on the campus perimeter when the new College of Letters and Science opened in 1954, but that these commercial ventures had failed to materialize.

If students were to have at least noon meals available (most of them live at home and commute to campus), it would be up to the university to expand the current facilities. But how, and with what?

Returning to the administration wing, Architect Evans suddenly pointed to one of the structures in the farm group and exclaimed: "Why not convert the old barn?" Mr. O'Neill could think of no reason why not, nor could the resident architect, Al Haight, the campus provost, Dr. Gordon S. Watkins, or the regents themselves.

So, for the expenditure of \$50,000, the University of California at Riverside has an attractive eating hall accommodating 240 persons plus patio tables for 60 more outside. With 350 days of sunshine every year at Riverside, these usually fill up first.

Finances kept food service equipment to a minimum, but the menu includes hamburgers, french fries, soup, chili, salads, tacos, pie, beverages, packaged sandwiches, and desserts. All equipment is electrically operated, and space is available for additional installations should these prove desirable.

A staff of four full-time employees plus three part-time student assistants serves an average of 820 customers

daily. The Barn is open from 8 a.m. to 4 p.m. Monday through Friday and in the evenings when reserved by campus groups for special dinners or parties.

Since the young campus has no student union, many student dances are held in the Barn. Adequate room for dancing is arranged by moving tables

and benches against the walls or onto the patio. The walls and ceiling are decorated with saddles, whiffletrees, colorful saddle blankets, spurs, equestrian pictures, and other appropriate items so that little additional adornment is needed for social events.

Now that the college has produced its first graduates (20 seniors who

Students are allowed to carve their initials on the Barn's unpainted walls. This couple, who met on campus, have since married and are continuing their education at U.C.R.





Throughout the day, the Barn at the University of California Riverside campus serves as a "hangout" for students and faculty. The young campus has no student union as yet.

transferred from other schools in 1954 were awarded diplomas last June), another form of decoration is being added to the Barn. Each man student, as he leaves campus, hangs his autographed coffee mug on the rafters. These are undisturbed until the alumnus returns.

The size of the alumni association gives no indication that the University of California has been conducting research in Riverside for half a century. Establishment of a citrus experiment

station there was authorized in 1905, and the first of the present station buildings was constructed in 1917. The barn was built at that time to house the horses used to draw cultivation equipment through the experimental orchards. When this equipment was mechanized, the structure was used for storage. The horse stalls, with their iron bars and chewed partitions, were retained, however, and today are labeled with the names of their original occupants.



A limited but tasty menu is made possible by this food preparation equipment installed in the converted barn.

Since 1917, the citrus experiment station has expanded until it is now conducting research on virtually every crop grown in Southern California. But rarely have there been more than one or two graduate students on campus, and they are preparing for doctorates to be awarded on the Berkeley or Los Angeles campuses. These students and the staff brought their lunches from home.

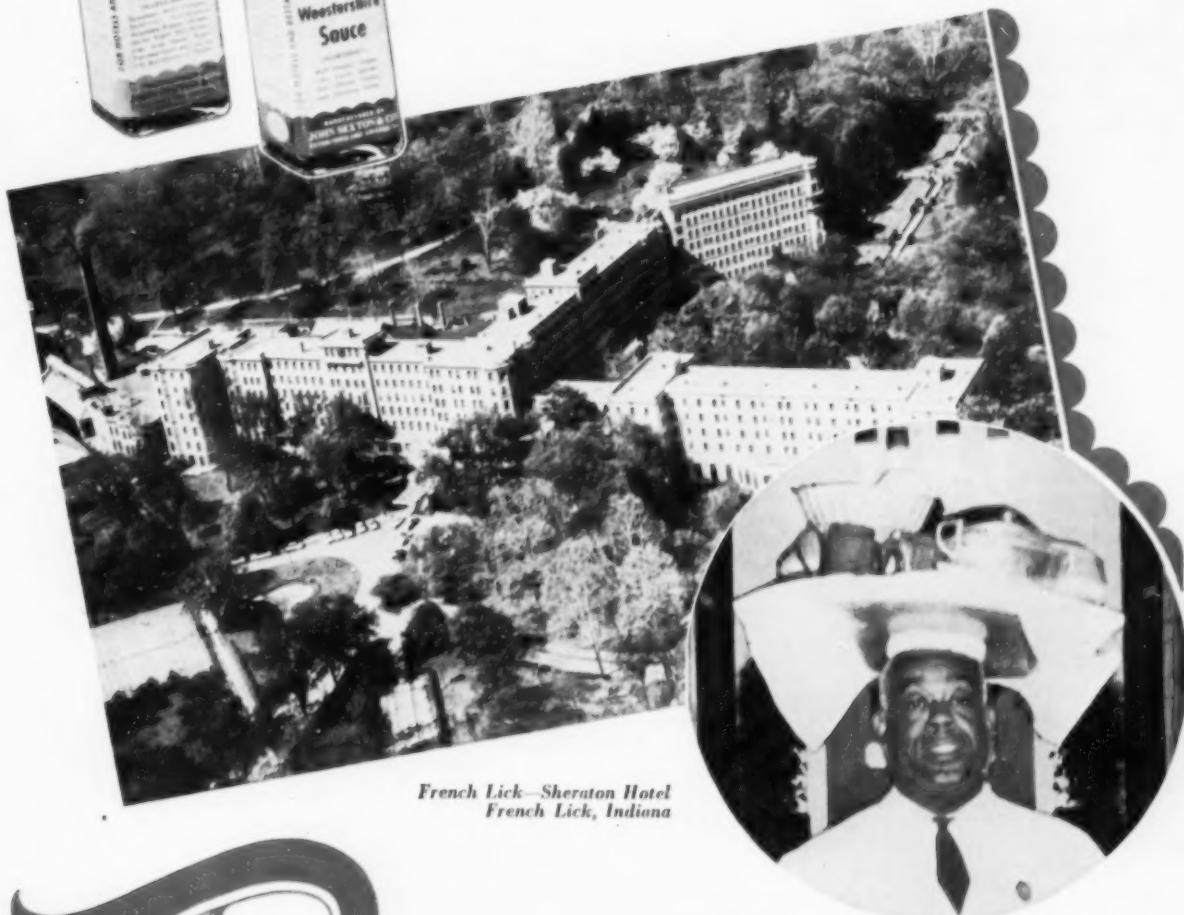
Following World War II, the state legislature asked the University of California to expand its undergraduate letters and science facilities in Southern California. With nearly a thousand acres in the heart of the rapidly developing inland empire, regents of the university decided to establish the new liberal arts college on the Riverside campus.

Dr. Watkins, a former dean of the College of Letters and Science at U.C.L.A., was assigned the task of establishing the college and integrating it with the citrus experiment station. Although delayed by the Korean situation and resultant shortages of materials, Provost Watkins had five new buildings and 50 faculty members waiting for the first 126 students. These had to cross muddy fields on planks the opening day in February 1954, but this damp beginning was soon forgotten as the lawns grew, the football team won a game, and all the other ingredients of campus life were assembled. The Barn proved an unexpected—and extremely popular—dividend.

Friends of the campus have donated much of the "horsiana" adorning the rafters and walls of the Barn. Students and the Barn staff keep bare spots covered with posters announcing student events and reminding patrons to "bus your own dishes." But such is the pride of the students in "their" Barn that such reminders are hardly necessary. In fact, recent announcement of long-range plans for eventual construction of a classroom building on the Barn site has resulted in a "Save the Barn League." Students want the Barn a permanent part of the campus.



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Vol. 20, No. 4, April 1956

NEWS

Student Loan Funds Total \$42 Million . . . A.A.U.P. Recommends Censure of Five Colleges . . . San Francisco State Tries Teaching Students at Home by Television . . . Cincinnati Observes 50th Year of Co-Op Training

\$42 Million Available in Student Loan Funds

WASHINGTON, D.C.—More than \$42 million in loan funds is available for college students, according to a survey made by *Changing Times*, the Kiplinger magazine. The study was undertaken in cooperation with the Association of American Colleges.

Student loan funds are available in two-thirds of our universities and colleges at interest rates that average about 2 per cent while the student is in college and about 4 per cent when he graduates. In most cases, those who borrow have an unlimited time after graduation in which to repay.

The average college has about \$39,000 in reserve for loans to students, and lends about \$14,800 a year. On the average, 125 students in each college apply for and get loans during the school year. It is easy to obtain such loans. In 1955, 88 per cent of loan applications covered in the survey were granted. There is usually a limit on the total amount a student may borrow, but in most cases the amount is in the neighborhood of from \$400 to \$600 a year.

Loans usually are open to anyone who maintains passing grades, as they are granted on the basis of need, rather than high scholastic achievement. Students who have scholarships may borrow from loan funds to supplement their income.

Survey results showed that students are reluctant to borrow money to go to college, and that this could be overcome if students were better advised on their personal financial affairs. Many needy students are not aware of the amount of money that can be borrowed and the ease with which loans can be arranged. College presidents are nearly unanimous, according to the survey results, in their opinion that students should be willing to

borrow to obtain a college education. In fact, many schools are beginning to require that those who accept scholarships also borrow from student loan funds to make up the cost of their education, the magazine reports.

Supreme Court Affirms Nonsegregation Ruling

WASHINGTON, D.C.—On March 5 the Supreme Court of the United States affirmed a decision of a special three-member federal court denying the claim of the state of North Carolina that the nonsegregation ruling applied only to lower or primary schools and not to colleges and universities.

North Carolina had asked the higher court to overrule. In a terse statement the Supreme Court stated "the judgment is affirmed." It also made plain that it was speaking "per curiam" (the court as a whole) instead of one justice alone speaking for the tribunal.

Obeying the lower court order, North Carolina admitted three Negro students to its university at Chapel Hill last fall, while legally challenging the decision. There was no disorder at the time the students were admitted.

A.A.U.P. Recommends Censure of Five Colleges

NEW YORK.—Censure of five colleges and universities for alleged violations of academic freedom and tenure was asked by a special committee of the American Association of University Professors in a 58 page report released to the public on March 22.

This is reported to be the largest number of institutions to be brought up for censure by the A.A.U.P. at any one time. The last institution to be so listed was Evansville College, Evansville, Ind., in 1950.

Institutions recommended for censure are the University of California, Ohio State University, Rutgers University, Temple University, and Jefferson Medical College of Philadelphia.

According to the report, each of the schools dismissed faculty members who had either pleaded the Fifth Amendment to the Constitution when called before congressional investigating committees or who had refused to cooperate with the committees. The Fifth Amendment protects an individual from testifying against himself.

(Continued on Page 60)

FOOD SERVICE INSTITUTE

Harold W. Jordan, director of the Indiana University Union, will address persons attending the Food Service Institute on "Is Food Service in the Union Unfair Competition for Residence Halls?" Theodore W. Minah, director of dining halls at Duke University, will speak on "What the Food Service Director Expects of the University Administration."

Enrollment is already at more than 60 per cent of capacity (125) for the 1956 Food Service Institute. The early response to the announcement of this year's institute indicates that persons planning to attend should register as quickly as possible. The Food Service Institute is presented by COLLEGE AND UNIVERSITY BUSINESS in cooperation with Northwestern University and the University of Chicago, and will be held at the Knickerbocker Hotel in Chicago on July 16, 17 and 18.

Tuition fee for the three-day institute is \$17.50. Checks should be made payable to "Food Service Institute" and sent to College and University Business, 919 North Michigan Avenue, Chicago 11, Ill.

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NEWS.

A.A.U.P. Recommends

(Continued From Page 56)

Action regarding the five institutions listed for censure will take place at the association's annual meeting at St. Louis April 6 and 7, it is expected. Five colleges are still under investigation, it is understood.

The report charged that academic freedom was threatened and asserted that: (1) special loyalty oaths and other restrictions are not needed for

national security; (2) teaching has been made to seem a less worthy profession to intelligent young men and women because of the attacks made on it; (3) legislation, such as the Feinberg Law in New York State, that calls on supervisory officials to certify that members of their staffs are not subversives, is repugnant.

Any dismissal proceeding action, the committee report declares, should be based on the teacher's whole record and conduct, not on any single asso-

ciation or act. Removal from the faculty can be justified only on the grounds, established by evidence, of unfitness to teach because of incompetence, lack of scholarly objectivity or integrity, serious misuse of the classroom or of academic prestige, gross personal misconduct, or conscious participation in conspiracy against the government, the report concluded.

Censured Colleges Defend Themselves on Ousting "Reds"

COLUMBUS, OHIO.—President Howard L. Bevis of Ohio State University sharply criticized the recently released report of the special committee of the American Association of University Professors which recommended censure for Ohio State University and four other institutions. In commenting on the censure move, President Bevis submitted the following statement:

"1. That the committee has published a finding concerning this university without notice, without hearing, and without knowledge of many important facts.

"2. This finding is based upon the premise set forth in a press release of March 22, 1956, that dismissal of a faculty member for membership in the Communist party taken by itself is not warranted. Such dismissal is alleged to be a violation of academic freedom.

"The Ohio State University takes issue with this premise. There is no longer any reasonable doubt that members of the Communist party are part of a conspiracy to overthrow the government of the United States, by force if necessary. Furthermore, no party member is free to hold or express thoughts or opinions at variance with the current party line.

"In our judgment, therefore, no party member is fit to become or to remain a professor in a state university. This is the basic issue. Upon it we take our stand."

At other institutions listed for censure, reactions were forthcoming. Dr. Clark Kerr, chancellor on the Berkeley campus of the University of California, called the report "unjustified and singularly inappropriate at this time."

Dr. Robert Gordon Sproul, the president, said the report was "obviously drafted some time ago." The committee's report, he said, stressed the fact that the regents were demanding



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NEWS

court adjudication of back pay for faculty members who were dismissed and reinstated. Settlement of the back pay question has been made, by negotiation.

Presidents of Temple University and Jefferson Medical College declined comment to the press at this time. Rutgers officials made no comment in regard to the censure move but said that the university stood on the position taken when two professors were dismissed Dec. 31, 1952.

A.C.E. Urges Higher Education for More

WASHINGTON, D.C.—Opportunities for higher education should be made available to all Americans to the extent of their capabilities, according to a recent statement approved at a two-day session of the American Council on Education in this city.

This position was taken in a statement prepared for the consideration of the President's committee on edu-

cation beyond the high school. According to advance reports, Devereux C. Joseph, New York businessman, is expected to be named chairman of the President's committee.

The statement prepared by the American Council on Education said that "opportunity must be given to every American citizen to attain the highest level of education and training of which he is capable." This would mean developing "new educational resources, diverse types of institutions, additional courses of study, new technics such as educational television."

Experiment With TV Courses at Home

SAN FRANCISCO.—Already plagued with rapidly expanding enrollments and a shortage of teachers and classrooms, college officials will watch eagerly an experiment recently announced by San Francisco State College.

Financed by a \$125,000 grant from the Fund for Advancement of Education, the experiment will use television to teach undergraduate students at home. Facilities of KQED, educational television station for the Bay Area, will be used.

Initially the college plans to experiment with four courses selected to present varying degrees of difficulty in adaptation to television. The courses are in economics, psychology, creative arts, and English (basic communications). A carefully planned evaluation program will measure the learning results of the television students as compared with those receiving instruction in the classroom.

San Francisco State, which has grown from 800 to 8000 students in the last 10 years, will face serious shortages of staff and facilities in the near future if present enrollment trends continue, according to President J. Paul Leonard. Classrooms already are in almost constant use from 8 o'clock in the morning until 10 o'clock at night.

Commenting on the grant, Dr. Leonard said: "We believe every means of increasing the effectiveness of the college teacher needs to be explored. Television may enable us to continue to teach all students with competent faculty."

Two of the courses will be given next fall and two during spring se-

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NEWS

mester 1957. Students enrolled in the TV courses will be brought to the campus every other week for a laboratory-discussion session intended to compensate for the lack of direct contact involved in a television lecture.

Formal enrollment in the television courses will be limited to regular students of the college. However, provision also will be made for others—including exceptional high school students—who wish to take the course apart from the experimental group.

Racial and Religious Discrimination Costly

NEW YORK.—The cost to the United States in racial and religious discrimination is \$30 billion a year, estimated William E. Vickery, New York educational director of the National Conference of Christians and Jews. Dr. Vickery was addressing the faculty and students of Pace College.

Intolerance not only lowers the purchasing power of minority groups but

has a direct effect on the nation's expenditures in such fields as health and crime prevention, Dr. Vickery declared. It prevents inherent leadership from rising, affects the emotional stability of large groups, and damages the nation's moral fiber, he added.

Connecticut Plans Huge Building Program

HARTFORD, CONN.—The Connecticut State Board of Education recently approved a \$20 million state school program for construction of seven new technical schools and expansion of the state's four teachers colleges. The proposal will be submitted to the state legislature next January; the program would be completed in four years.

Present plans call for the teachers colleges at Danbury, New Haven, Willimantic and New Britain to be extensively enlarged under the new proposal.

The technical training schools, to train highly skilled technicians and engineering aides, will be established at Norwalk, Waterbury, Norwich, Danbury, Meriden, Bridgeport, and at a location in northeastern Connecticut.

Rigid Test for Florida Graduate Schools

SARASOTA, FLA.—The state board of control recently passed regulations requiring that applicants for admission to the graduate schools pass a rigid examination.

Chairman Fred Kent said: "This is done with the segregation issue in mind. If there is any great influx of applicants to our crowded institutions we can take only the best qualified ones. Maybe some of the best qualified ones will be Negroes."

Mr. Kent stated that the action did not result from the case of Virgil D. Hawkins, Daytona Beach Negro, who has applied for admission to the University of Florida Law School. His admission has been ordered by the United States Supreme Court.

Fordham Faculty to Get 14% Salary Increase

NEW YORK.—The Rev. Laurence J. McGinley, president of Fordham University, reports that increases of 14 per cent will be made in the institution's salary schedule effective in



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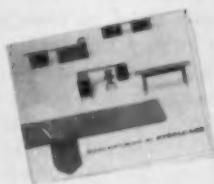
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NEWS

September. The new schedule will range from a minimum of \$4000 for beginning instructors to \$10,000 for full professors. It is reported that more than \$10,000 will be paid for "special professorships."

On July 1 the basic yearly tuition rate for undergraduate students will be increased from \$600 to \$700. Graduate tuition also will be increased.

The recent Ford Foundation grant aided in making possible the increase in the salary scale.

Celebrate 50th Year of Cooperative Technological Education at Cincinnati

CINCINNATI.—Cooperative technological education's first half-century will be surveyed by nationally known industrialists, scientists, business leaders, and educators April 19 to 25 at the University of Cincinnati.

The six-day 50th anniversary program will be devoted to a conference and an exposition. The cooperative

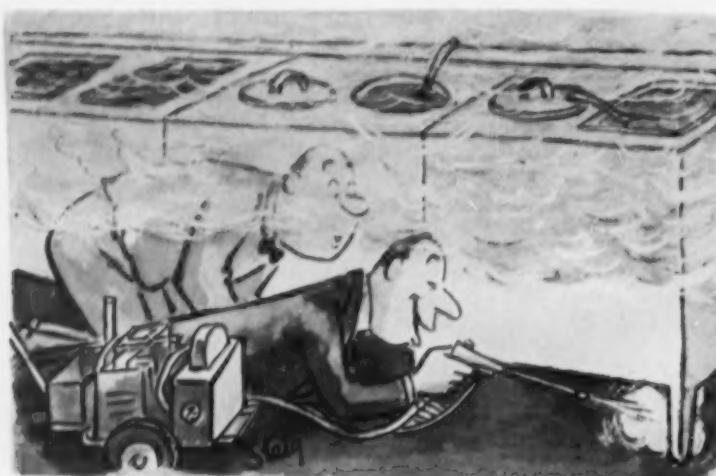
plan, started in 1906 at Cincinnati, soon spread to other campuses. Through this plan, students spend alternating periods learning theory in campus classrooms and laboratories and gaining practical experience at work in the field.

Dr. Walter C. Langsam, new Cincinnati president, has appointed Frederick V. Geier as general chairman of the program's national sponsoring committee. He is president of the Cincinnati Milling Machine Co., one of the first and now one of the largest employers of Cincinnati "co-ops."

Others on the committee are Hennings W. Prentis, Lancaster, Pa., board chairman of the Armstrong Cork Co. and Cincinnati graduate and former administrative officer; Stanley C. Allyn, Dayton, Ohio, president of the National Cash Register Co.; Charles R. Hook, Middletown, Ohio, board chairman of the Armco Steel Corp., and Cyrus R. Osborn, Detroit, a vice president of the General Motors Corp. and Cincinnati "co-op" mechanical engineering graduate.

The anniversary theme is "Education and Industry at Work for Progress." In addition to honoring the memory of Dean Herman Schneider, the "co-op" plan's founder, and centering attention on the plan's contributions to the advancement of education, the program is designed to show youth the great opportunities and challenges awaiting them in the fields of engineering, business administration, and the applied arts.

The exposition, in the campus Armory-Fieldhouse, will be entitled "Panorama of Industrial and Scientific Progress, 1906-1956." More than 70 of the nearly 600 firms from coast to coast that employ Cincinnati "co-op" students will present displays reviewing America's advances during the 50 years of "co-op" education. Also to be shown is the National Association of Manufacturers' new "Americade" forecast of the nation's major industrial and business developments in the coming decades.



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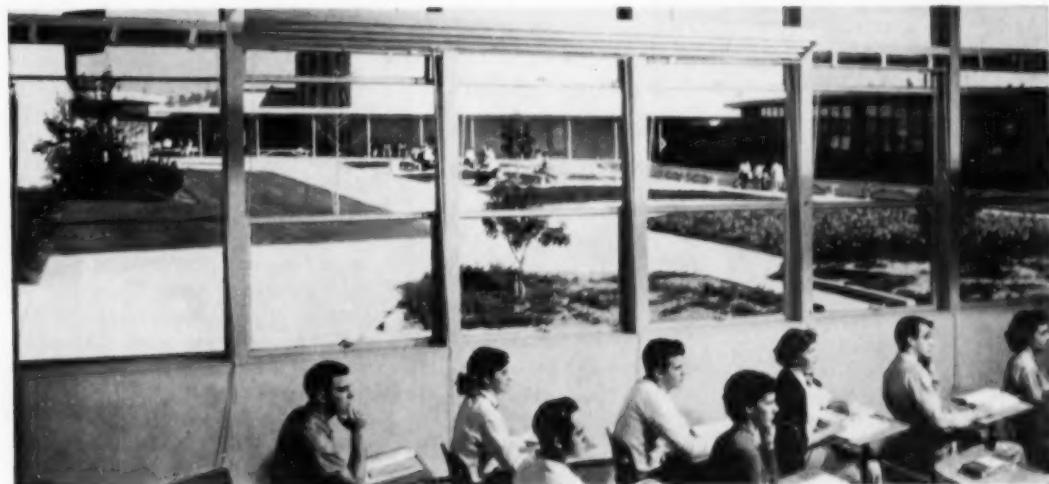


Gives \$1½ Million for Student Exchange

NEW YORK.—The Institute of International Education recently received a grant of \$1½ million from the Carnegie Corporation of New York for the support and development of its



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Children live so much of their lives in classrooms. That's why Daylight Walls are vitally important.

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Send for your free copy of this complete research report by Paul R. Hensarling, Director of Administrative Research and School Community Relations for Port Arthur, Texas.

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NEWS

programs of international student exchange for the next 10 years.

The private, nonprofit organization is administering exchange programs this year involving more than 4500 persons. It handles, under contract, many exchange programs for governmental and private agencies.

According to Arthur A. Houghton Jr., chairman of the board of the Institute of International Education, the gift is the largest ever received by the organization. He pointed out, how-

ever, that the program developed by the institute will require \$8.4 million in new funds during the next decade.

Conference at M.I.T. on Campus Safety

CAMBRIDGE, MASS.—College and university representatives throughout the United States will gather at the new Kresge Auditorium at the Massachusetts Institute of Technology from April 30 through May 2 for the

third national conference on campus safety in a series planned by the campus safety committee of the National Safety Council.

The three-day program, organized jointly by Massachusetts Institute of Technology and the National Safety Council, will cover many of the safety problems that arise on college campuses.

Typical of the wide range of topics that will be discussed are fire prevention, architectural design as related to safety, the student car problem, safeguards in handling radioactive materials, disposal of other laboratory wastes, safe handling of gases, and the safety implications of intramural athletic programs.

Announce Faculty for Workshop in College Business Management

OMAHA, NEB.—Thomas A. Ballantine, chairman of the education committee of the U.S. Chamber of Commerce and a member of its board of directors, will give the convocation address at the opening of the seventh annual workshop in college business management at the University of Omaha, July 22 through July 28. Mr. Ballantine will speak on "American Business Looks to Higher Education—for What?"

This year's workshop, according to Charles W. Hoff, vice president of the university, will include lectures on college business management, the philosophy of higher education, budget preparation and control, purchasing philosophy and objectives, administration of noninstructional personnel in small colleges, and the effect of national affairs upon higher education.

Also to be included are research technics, the establishment of retirement programs, casualty insurance, business management of the student activities program, food service and residence hall management, buildings and grounds supervision, and public relations problems.

Faculty members for the workshop include J. D. Adwers, director of physical plant at the University of Texas Dental Branch in Houston; Dr. Francis J. Brown, staff associate of the American Council on Education, Washington, D.C.; Richard C. Debus, assistant to the vice president at the University of Omaha; Donald E. Dick-

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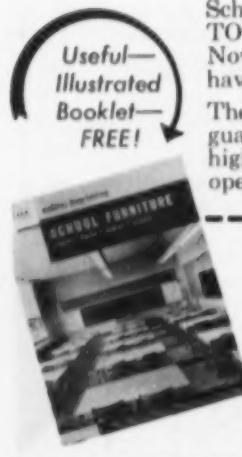
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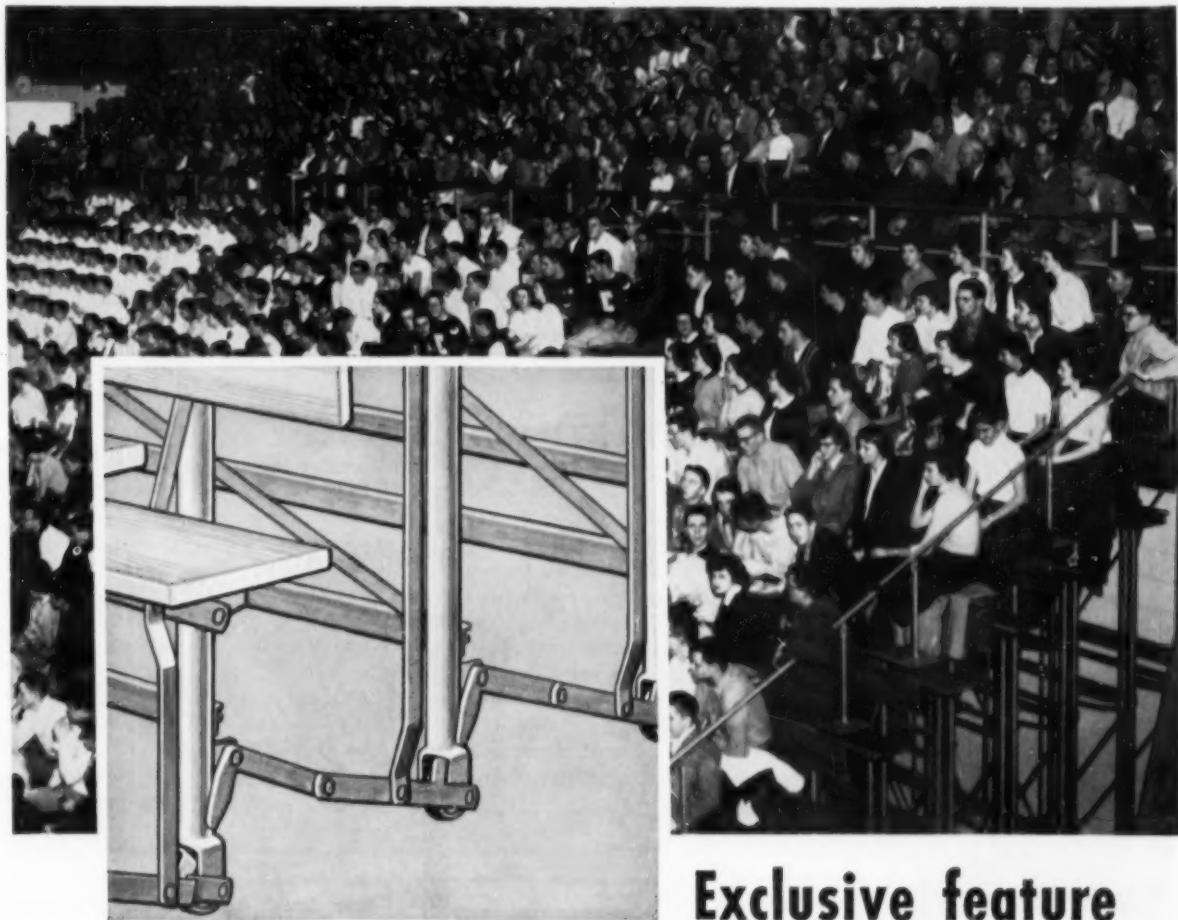
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ason, director of the office of non-academic personnel at the University of Illinois; Dr. Don Emery, dean of the college of adult education and summer sessions, University of Omaha; Dr. Frank H. Gorman, dean of the college of education, University of Omaha; Dr. Rowland Haynes, president emeritus, University of Omaha; Elmer Jagow, business manager, Concordia Teachers College, River Forest, Ill.; Dr. Grant Osborn, associate professor of insurance, University of Omaha;

James J. Ritterskamp, director of purchasing and auxiliary enterprises at Washington University, St. Louis; Dr. John Dale Russell, chancellor and executive secretary of the Board of Educational Finance of the State of New Mexico; Dr. Clarence Scheps, controller, Tulane University, New Orleans; Donald Willard, Teachers Insurance and Annuity Association, New York City, and Harold W. Herman, editor, COLLEGE AND UNIVERSITY BUSINESS.

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1100 Administrators Hear Talks on Staffing, Salaries, Overcrowding

CHICAGO.—Our nation can well afford the expansion of higher education that rising student enrollments will demand, President Herman B. Wells of Indiana University told the 11th annual conference of the Association of Higher Education which met here last month.

The present college framework is sufficiently large to accommodate many additional students, Dr. Wells said. Many retired faculty members can and must be reemployed. Women, including faculty wives, will make effective additions to the teaching staff, he believes.

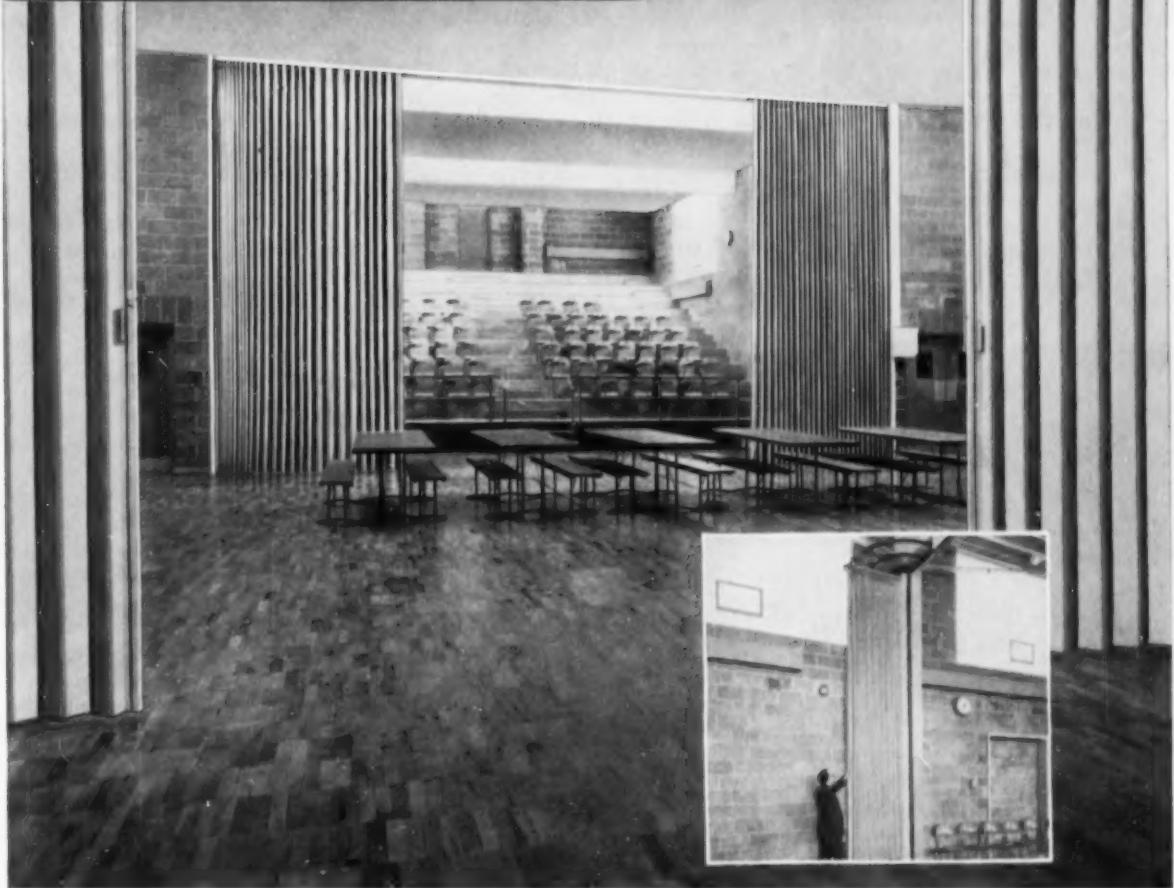
The 1100 college administrators in attendance heard Dr. Earl J. McGrath, president of the University of Kansas City, declare that "the average American can and should pay a larger proportion of the total cost of his higher education than he does at present." In referring to the fact that tuition in independent institutions does not properly cover the cost of educating the student, Dr. McGrath stated: "Neither logic nor humanitarian social philosophy requires that philanthropy or taxation should bear the expenses of advanced education for those who are amply able to meet their own financial obligations."

In another session, Dr. Harold Taylor, president of Sarah Lawrence College, said: "American educators have lost track of the student himself. He is now a forgotten man of higher education. On the college campuses his views on education are seldom considered, his help in educational planning is seldom sought. Yet when it is, and when he is made responsible as a partner in the educational enterprise, he responds directly, imaginatively and forcefully."

Alvin C. Eurich, vice president of the Fund for the Advancement of Education, told administrators that improvement must be made in the techniques of communication and instruction. The belief that small classes are essential to good teaching is a "cliché." Dr. Eurich suggested use of television and film in reorganizing curriculums and in utilizing the teachers available.

Beardsley Ruml, New York financier and author of the plan to pay the federal income tax in installments,

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NEWS

urged colleges to make a substantial increase in the salary scale paid faculty members. He suggested an average salary for professors of \$15,000 a year with a range up to \$30,000. This sharp increase in salaries is needed, he declared, "to restore the faculty to its relative economic position of 50 years ago."

In order to meet such salary goals, Mr. Ruml advocated two basic changes: Increase the present ratio of 13 students to one teacher to a ratio of 20 to

one, and decrease the number of hours a student spends in the classroom. No student should spend more than 12 hours a week in class, he said, whereas the average student today is in class between 15 and 18 hours a week.

Mr. Ruml suggested that alumni and friends should pay the noninstructional costs of a college. If students in privately supported institutions pay approximately \$750 tuition, it would be possible to have an average salary of \$15,000 a year, Mr. Ruml said.

In resolutions presented to the convention there was one commanding colleges and universities that have made progress in integration and urging schools to work out their problems "over a period of time with wisdom and understanding." Other recommendations call for a White House Conference on Higher Education, tax credit for payment of tuition and fees, extension of educational benefits to all who complete military service, and recommendations for an increased program of foreign student exchange.

Election of the president will be by mail ballot.

Collect Back Salary in Loyalty Oath Dispute

BERKELEY, CALIF. — A total of \$162,000 in back salary will be paid the 16 faculty members dismissed by the University of California in a 1950 loyalty oath dispute. The settlement was approved by the university regents on March 16. Individual payments ranged from \$2050 to \$23,116.

The faculty members were discharged when they refused to take a special loyalty oath. The California supreme court ruled the special oath was illegal in January 1953, and the 16 were restored to their positions.

This agreement, which ends lawsuits against the university by the 16 professors, gives them the \$162,000 in back pay, restoration of rights such as pension, seniority and promotion privileges, and credit toward sabbatical leaves. However, it deducts their earnings at other jobs while they were off the University of California payroll.

Florida to Resist Supreme Court Ruling

TALLAHASSEE, FLA.—On March 13 the Florida cabinet pledged itself to resist by every lawful means the U.S. Supreme Court edict that a Negro be admitted immediately to the University of Florida Law School.

The cabinet, made up of the governor and six elective administrative officials, agreed that Attorney General Richard W. Ervin should ask the Supreme Court to reconsider what Mr. Ervin called its "precipitous, unreasonable and arbitrary" order to admit Virgil D. Hawkins to the law school.

Gov. LeRoy Collins, an attorney, has offered to appear before the Supreme Court if further arguments are granted.



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NEWS . . .

Abolish Hazing Among All Student Groups at M.I.T.

CAMBRIDGE, MASS.—Students of the Massachusetts Institute of Technology, acting through the Interfraternity Conference and the Institute Committee, the undergraduate governing body, have taken steps to improve initiation customs and to abolish hazing among all student groups in the institute.

This action, initiated by the stu-

dents themselves following the recent tragic accidental death of Thomas L. Clark, was recently announced by President James R. Killian Jr.

In making this announcement, Dr. Killian said:

"I report with deep satisfaction this decisive action by the student government at M.I.T. in outlawing hazing and other outmoded activities by fraternities and other student groups.

"I hope the conclusiveness and comprehensiveness of the policies adopted

for condemning and outlawing these immature practices will be widely recognized as typifying the best in student life and responsible student government. M.I.T. will employ every power and means at its disposal to back and to perpetuate this action of student government."

Following a study of every phase of fraternity initiation customs at M.I.T., the Interfraternity Conference announced these regulations for initiation procedures:

"No fraternity shall violate the basic principles of good taste, and a fraternity will initiate no activity that will be detrimental to the reputation of the M.I.T. community.

"No initiation or pledge training activity shall constitute any physical or emotional hazard to the individual. Such potential hazards include the 'long walk,' the quest, dangerous physical exertion or exhaustion, physical violence, paddling, and the 'mock initiation.'

"No pledge training or initiation activities shall take place outside of the fraternity house with the exception of such functions as a formal initiation banquet or service to the community."

The Interfraternity Conference announced formation of a pledge training committee and requested the assistance of members of the faculty and administration, including representatives of the medical department, in accomplishing its purpose. The pledge training committee will give advice and assistance to the 26 fraternities and will have the power to recommend changes in the general initiation program.

Proposes 12 Year Integration Plan

NEW YORK—Gradual integration of races in the educational system of the South was suggested by Harold Reigelman, chairman of the commission on community organizations of the National Conference of Christians and Jews, in a recent speech here. He suggested a period of 12 years, to make the change-over "much more palatable to those who sense the difficulties of more rapid integration."

Mr. Reigelman proposed that the integration process begin at the first-year level in both elementary schools and colleges and progress yearly to the next highest grade.



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NAMES . . .

NAMES IN THE NEWS

G. C. Henricksen, assistant business manager and assistant controller of Duke University, Durham, N.C., since 1948, was recently named controller and assistant treasurer of the university. A. S. Brower, business manager and controller since 1946, continues to



G. C. Henricksen

serve as chief officer of the university in business matters and as business manager. He relinquished the title of controller to assume the post of treasurer, succeeding the late C. B. Markham, who died in December.

Dr. Laurence N. Barrett, head of the department of English at Kalamazoo College, Kalamazoo, Mich., has been named academic dean of the college, according to Weimer K. Hicks, president. Dr. Barrett's appointment is effective July 1.



Walter F. Vieh

Walter F. Vieh has been appointed assistant chancellor in charge of business affairs at the University of Pittsburgh. Mr. Vieh, a former New York management consultant, will become a full-time member of the university staff on July 1, but is now working as a consultant to Chancellor Edward H. Litchfield.

Grady E. Welch, formerly educational director and financial secretary of Dawson Memorial Baptist Church, Birmingham, Ala., has been appointed administrative assistant for Louisiana College, Pineville. The post is a new one created by the college board upon the recommendation of President G. Earl Guinn. Mr. Welch will be in charge of the business office and will be responsible for supervision of all nonacademic personnel.

The Very Rev. William J. Collins, chairman of the department of economics and business administration at St. Ambrose College, Davenport, Iowa, has been named president of the college to succeed the Rt. Rev. Msgr. Ambrose J. Burke, president since 1940. Father Burke is resigning to accept assignment as pastor of St. Mary's Church in Clinton, Iowa.

The Rev. Earl G. Hunt Jr., pastor of the First Methodist Church, Morristown, Tenn., has been named president of Emory and Henry College at Emory, Va. The appointment becomes effective July 1, at which time he will succeed Dr. Foye E. Gibson, president for the last 15 years. Dr. Gibson will head Scarritt College for Christian Workers, Nashville, Tenn., succeeding Hugh C. Stuntz, who is retiring at the end of the academic year.

John E. Ivey, director of the Southern Regional Education Board in Atlanta, Ga., left March 28 for a six-month study trip abroad as one of two American recipients of an Eisenhower Fellowship. Dr. Ivey has been granted leave for the trip by the Southern Regional Education Board in order to study educational systems and methods in Europe and the Near and Far East. The Eisenhower Fellowships are awarded each year to two citizens of the United States and to 10 foreigners. The Americans may travel to any part of the world they choose, while the



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NAMES

awards to foreigners are made for travel in America.

Milton M. Hart, systems engineer for Lever Brothers Company since 1950, has been named director of tabulation and systems at New York University, announces LeRoy E. Kimball, vice chancellor and controller. In his new



Milton M. Hart

position, Mr. Hart will assist George F. Baughman, N.Y.U. business manager, in setting up centralized methods for using tabulating and related electronic equipment.

Dr. George D. Stoddard, chairman of the directing committee of the New York University Self-Study and formerly president of the University of Illinois, has been named dean of New York University's school of education. He will take over the deanship September 1, succeeding Dr. Ernest O. Melby.



Charles H. Peake

Charles H. Peake, dean of Knox College, Galesburg, Ill., has been appointed to the newly created post of assistant chancellor in charge of student affairs at the University of Pittsburgh and will join the staff on July 1, according to Edward H. Litchfield, chancellor. Dr. Alan Carson Rankin, assistant professor of administration and director of student affairs in the graduate school of business and public administration of Cornell University, will become executive assistant to Chancellor Litchfield on July 1.

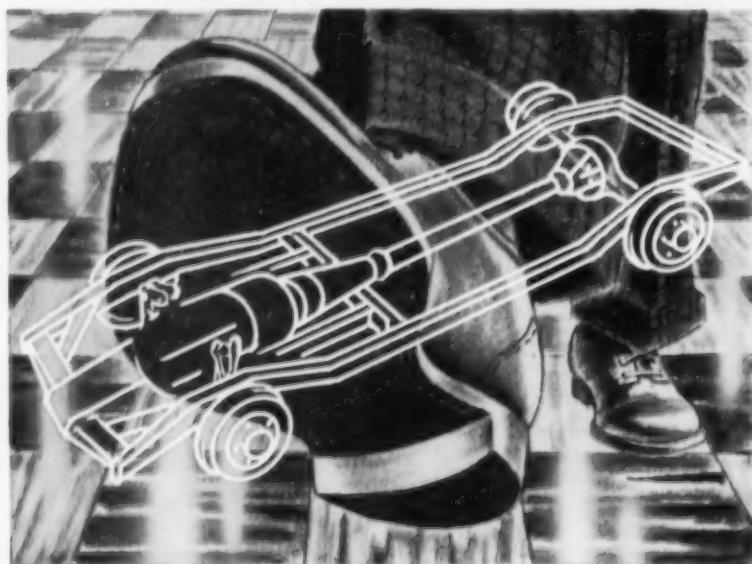
Dr. Samuel C. Kincheloe, professor of the sociology of religion on the Federated Theological Faculty at the University of Chicago, has resigned to become president of Tougaloo Southern Christian College, Tougaloo, Miss. Having reached retirement age, Dr. Kincheloe would normally have relinquished his teaching duties at the end of the summer term this year.

Dr. Thomas P. Pardon, dean of the faculty at Barnard College, New York City, is serving as acting president of the college during the three-month absence of Millicent C. McIntosh, who is on leave of absence. President McIntosh is spending part of her leave abroad and in Puerto Rico; she will return to the campus for commencement and the alumnae reunion in June.

Dr. Halsey B. Knapp, director of the Long Island Institute of Agriculture and Technology since 1923, has announced his retirement to become effective June 30.

Goodrich C. White, president of Emory University since 1942, announced recently that he is making plans for retirement at a date not later than Sept. 1, 1957. He has suggested to the board of trustees that consideration be given to selection of a successor at its fall meeting. Dr. White has served on the Emory faculty and staff for more than 40 years.

Murray M. Davidson, formerly senior market research analyst at Cleveland Electric Illuminating Company, has been named director of public relations and development at Fenn College, Cleveland. John J. Horton, formerly an editor with the World Publishing Company, is the new publications editor. Mr. Davidson succeeds Howard R.



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NAMES.

Taylor Jr., Fenn vice president, who resigned recently to take a post with the Carling Brewing Company.

Albert H. Bowker, executive head of Stanford University's department of statistics, has been appointed to the additional post of assistant to the provost. Dr. Bowker is spending a sabbatical year at Columbia University, but will return to Stanford to take up his dual position September 1.

John Hunter Detmold, a member of the administrative staff of Wells Col-

lege, Aurora, N.Y., since 1947, has been named director of development at Sweet Briar College, Sweet Briar, Va. His appointment became effective March 31.

Waldo Shumway, provost of Stevens Institute of Technology, Hoboken, N.J., and secretary of its board of trustees, died March 8 after a short illness. He was 64 years old.

The Rev. Dr. J. Edgar Park, president emeritus of Wheaton College in Massachusetts, died recently at 76 years

of age. Dr. Park served as president of Wheaton from 1926 to 1944.

Edward C. Jenkins, former president of George Williams College in Chicago, died in his home at Palo Alto, Calif., at 80 years of age. He was president of George Williams College, originally known as Y.M.C.A. College, from 1927 to 1935.

Franklin W. Johnson, president of Colby College, Waterville, Maine, from 1929 to 1942, died at his home in Waterville at the age of 85. More than any other individual, Dr. Johnson was responsible for the successful transfer of the college from the century-old buildings back of the railroad tracks in downtown Waterville to the spacious site on Mayflower Hill, 2 miles outside the city.

Chessman A. Herrick, 89, president of Girard College in Philadelphia for 26 years, died recently. He retired in 1936.

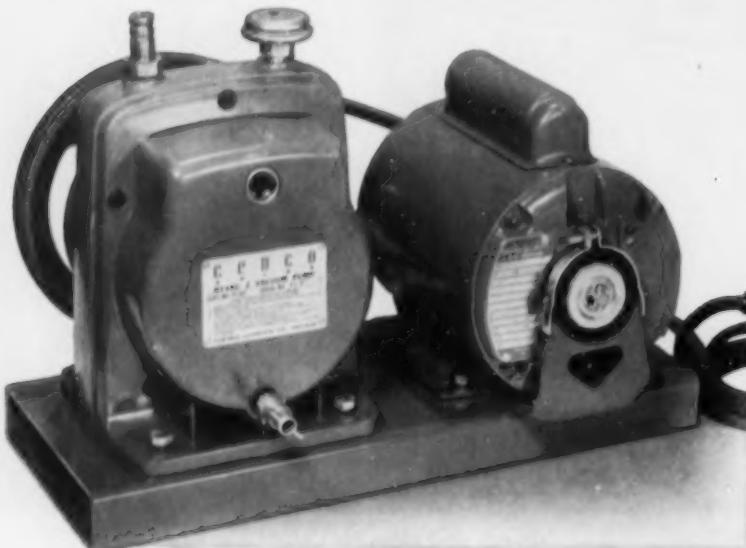
Albin C. Bro, former president of Frances Shimer College, Mount Carroll, Ill., died in Chicago recently following a heart attack. He was president of the college from 1939 to 1949, and from 1950 to 1953 acted as a State Department educational and cultural attaché in Korea.

Batsell Baxter, 69, president emeritus of Lipscomb College, Nashville, Tenn., since 1948, died recently following a stroke. At one time Mr. Baxter had served as president of Abilene Christian College in Texas and had been associated with George Pepperdine College, Los Angeles, and Harding College, Searcy, Ark.

Col. William Edward Gregory, 54, superintendent of Culver Military Academy, Culver, Ind., for the last 16 years, died recently in Washington, D.C. Col. Gregory was in Washington to attend a meeting of the Reserve Forces Policy Board's joint advisory panel on the Reserve Officers Training Corps.

Edna Dean Baker, 74, president of the National College of Education, Evanston, Ill., for 29 years, died March 20 in Riverside, Calif. Miss Baker moved to California after her retirement in 1949.

Dr. William F. Russell, president emeritus of Teachers College, Columbia University, New York City, died March 26 of a heart attack. Mr. Russell, who was deputy director of the International Cooperation Administration, was 65 years old.



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DIRECTORY OF ASSOCIATIONS

Associations of College and University Business Officers

American Association

President: J. B. Clarke, Howard University; secretary: B. A. Little, Southern University.

Convention: April 29-May 1, State Teachers College, Winston-Salem, N.C.

Canadian Association of University Business Officers

President: A. G. Rankin, University of Toronto; secretary-treasurer: E. A. Wilkinson, Hart House, University of Toronto.

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Convention: May 6-8, University of Notre Dame, Notre Dame, Ind.

Eastern Association

President: Marcus Robbins, Yale University; secretary-treasurer: Kurt M. Hertzfeld, University of Rochester.

Convention: Dec. 2-4, Greenbrier Hotel, White Sulphur Springs, W.Va.

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Southern Association

President: Wendell M. Murray, North Carolina State College; secretary: C. O. Emmerich, Emory University.

Convention: April 12-14, Peabody Hotel, Memphis, Tenn.

Western Association

President: Gerard Banks, College of Puget Sound; secretary: Kenneth A. Dick, University of Idaho.

Convention: April 29-May 2, Sheraton-Palace Hotel, San Francisco.

National Federation of College and University Business Officers Associations

President: Nelson A. Wahlstrom, University of Washington; vice president: Henry Doten, University of Maine; secretary-treasurer: C. H. Wheeler III, University of Richmond.

American College Public Relations Association

President: Bradford D. Ansley, Emory University; executive secretary: Marvin W. Topping, 726 Jackson Place, N.W., Washington 6, D.C.

Association of College Unions

President: Frederick Stecker, Ohio State University; secretary-treasurer: Edgar A. Whiting, Cornell University; editor of publication: Porter Butts, University of Wisconsin.

Convention: April 8-11, Purdue University, West Lafayette, Ind.

College and University Personnel Association

President: Arlyn C. Marks, State University of Iowa; secretary-treasurer: Elwood C. Clark, Rutgers University; executive secretary: Donald E. Dickason, University of Illinois. Permanent headquarters, 809 S. Wright St., Champaign, Ill.; Kathryn Hansen, editor, C.U.P.A. News.

Convention: Aug. 5-8, Cornell University, Ithaca, N.Y.

National Association of College Stores

President: E. Lyle Goss, University Book Store, Seattle; executive secretary: Russell Reynolds, Box 58, 33 West College Street, Oberlin, Ohio.

Convention: April 15-18, Statler Hotel, Boston.

National Association of College and University Housing Officers

President: F. C. McConnell, University of Texas; secretary-treasurer: Ruth N. Donnelly, University of California, Berkeley.

Convention: July 29-Aug. 1, University of Oregon, Eugene.

National Association of Educational Buyers

President: D. R. Kimrey, University of Oklahoma; executive secretary: Bert C. Ahrens, 1461 Franklin Ave., Garden City, N.Y.

Convention: May 2-4, Jung Hotel, New Orleans.

National Association of Physical Plant Administrators of Universities and Colleges

President: C. B. Jensen, University of Wyoming; secretary-treasurer: A. F. Galistel, University of Wisconsin.

Convention: May 20-23, University of Wisconsin, Madison, Wis.



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Accountant—Age 49, with 30 years varied accounting experience, including college and university as administrative staff officer, desires to invest experience in capacity of business officer with a college or university in the South. Write Box CW 287 COLLEGE AND UNIVERSITY BUSINESS.

Administrative Assistant to President, Financial Vice President, Treasurer, Business Manager, Controller—Ten years as administrator in higher education, seven years in secondary education, ten years in industry; proven competence in accounting, budget preparation, financial reporting, supervision of purchasing, maintenance physical plant, dining halls, dormitories, book stores, fund raising, personnel, endowment funds; excellent family background, married, 4 children; B.S. and M.A. degrees; working for M.B.A. and Ph.D.; presently employed in university; desire opportunity for advancement. Write Box CW-287 COLLEGE AND UNIVERSITY BUSINESS.

Administrative Assistant to the President, Fund Raising and Development, Business Manager, Student Counselling—Welfare executive experienced in administration, public relations, promotion, and fund raising; personnel selection, management and counselling; financial reporting, budget preparation and control; and purchasing, wants to work in college or university; B.E. degree in administration; family consists of self and son. Write Box CW 295 COLLEGE AND UNIVERSITY BUSINESS.

Businessman—47 years of age, desires position with school or church as business manager; 27 years experience closely aligned with school and church work; prefer location where ideas, progressiveness and modern conceptions are probably lacking, but needed; connection with music school would be acceptable, if scope of job warranted enough responsibility; finest references, from school, church and business world. Write Box CW 297 COLLEGE AND UNIVERSITY BUSINESS.

Business Manager, Treasurer—Successful college treasurer and business manager fourteen years, business administration teaching four years; proven competency in accounting, budgetary control, financial reporting, purchasing and plant maintenance; resourceful and understanding; presently treasurer liberal arts college. Write Box CW 280 COLLEGE AND UNIVERSITY BUSINESS.

Business Officer—Your request brings my complete personnel record, covering successful experience business management publicly-supported and church-related colleges. Write Box CW 288 COLLEGE AND UNIVERSITY BUSINESS.

Food Administrator—Twelve years college and institutional experience; experienced in budget control and personnel development; married; 35; veteran; desires larger operation; available after May. Write Box CW 288 COLLEGE AND UNIVERSITY BUSINESS.

Food Service Director—Dietitian with more than 20 years administrative food service experience in colleges and hospitals desires college position in Atlantic seaboard area; available July or September. Write Box CW-279 COLLEGE AND UNIVERSITY BUSINESS.

Housing Director—Eight years experience under three leading authorities in the field; last four years in management position; proven competence in student relations, food service, maintenance, budgeting, and new construction; completing M.S. degree; married; 38; two children. Write Box CW-284 COLLEGE AND UNIVERSITY BUSINESS.

Manager-Dormitory—Experienced in dormitory administration; purchasing, organization, budgeting, personnel; B.S. degree; Eastern location preferred; excellent references. Write Box CW 286 COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Ten years experience as superintendent in midwest college plus twenty years experience in construction, maintenance, planning and supervision; college graduate; desires to locate west coast or southwest. Write Box CW-285 COLLEGE AND UNIVERSITY BUSINESS.

Administrative Assistant—Position open for man to supervise fountain, catering, and personnel in cafeteria; assist in preparation of auxiliary enterprise budgets; give complete

information and salary requirements with application. Write to P. W. Kasch, Comptroller, ILLINOIS WESLEYAN UNIVERSITY, Bloomington, Illinois.

Athletic Business Manager and Purchase Agent—At small, private college, located in New York area; should have some athletic background and knowledge of accounting; will act as stadium and athletic field manager and handle all college purchasing. Write Box CO 186 COLLEGE AND UNIVERSITY BUSINESS.

Experienced Dining Hall Manager—In mid-west coeducational college; to assume charge of kitchen and dining hall operation, supervise full time and student help, and do daily ordering of supplies; write details about age, family, training, and experience to Box CO 187 COLLEGE AND UNIVERSITY BUSINESS.

Graduate Mechanical Engineer—A large eastern university is looking for capable man to assist the director of buildings and grounds in operating, maintenance, utility, and construction problems; five to ten years of responsible experience preferred; assignment involves application of practical technical engineering knowledge and broad public contacts; this is a newly created permanent position with excellent potential; salary open; all replies confidential and will be acknowledged; please submit resumes to Box CO 185 COLLEGE AND UNIVERSITY BUSINESS.

Purchasing Agent—Medium sized midwest university seeking qualified applicants; qualifications: college degree and experience in purchasing work; write full particulars as to experience, education, age and references. Write Box CO 184 COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Maintenance—Large, private, well established, year-round vacation center, catering to business and professional people, approximately 30 miles from New York City; applicant should have qualifying experience and administrative ability; physical plant program includes air conditioning, refrigeration, swimming pool, extensive property and numerous buildings. Write Box CO-180 COLLEGE AND UNIVERSITY BUSINESS.

Superintendent of Buildings and Grounds—Small college located in mid-Atlantic states area; position description on request, general supervision, building maintenance and new construction; state qualification, experience, salary requested. Write Box CO-181 COLLEGE AND UNIVERSITY BUSINESS.

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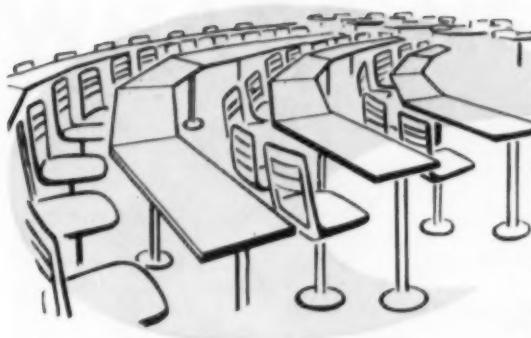
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Forms close 25th of month preceding date of issue.

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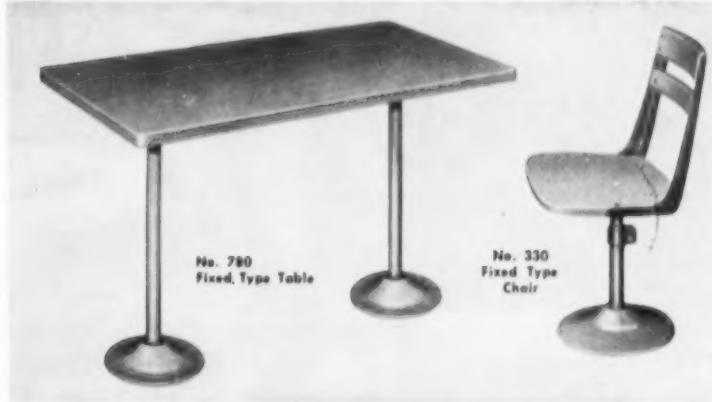


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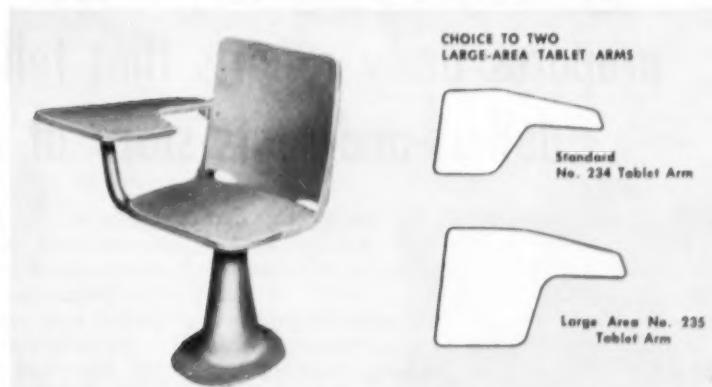
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**fixed type
pedestal
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An unusually comfortable chair with full-support back rest. A ruggedly built, long-lasting unit. Steel book rack below seat is supplied as optional equipment. Tablet arm is available in hardwood plywood or plastic. This type of chair is also available with partially open back with back rail cross members.



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COLLEGE and UNIVERSITY BUSINESS

WHAT'S NEW

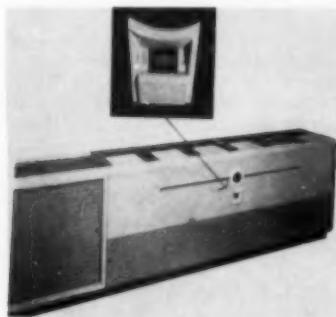
April 1956

Edited by Bessie Covert

TO HELP you get more information quickly on the new products described in this section, we have provided the postage paid card opposite page 104. Circle the key numbers on the card which correspond with the numbers at the close of each description item in which you are interested. COLLEGE and UNIVERSITY BUSINESS will send your requests to the manufacturers. If you wish other product information, just write us and we shall make every effort to supply it.

Automatic Indicator for Ventilator Filters

The new Herman Nelson Filter Indicator is an automatic device for providing



a constant check of filter condition to indicate when unit ventilator filters need cleaning or replacement. The Filter Indicator guards against the damage caused by dust-laden air. The dial of the Filter Indicator turns vivid red when the filter has accumulated its maximum dust load and reached the point of diminishing efficiency. The words "Change Filter" come into view and remain there until the filter has been changed or cleaned, thus keeping the equipment operating at top efficiency. Maintenance is simplified and it is not necessary to open the cabinet periodically to inspect the filter.

The Filter Indicator operates on the principle of constantly measuring resistance to air flow through the filter. It requires no maintenance or adjustment and tests have indicated it to be fool-proof. The indicator can be ordered factory-mounted on all new Herman Nelson unit ventilators. Kits for installation of the indicator on existing ventilators are also available. **American Air Filter Company, Inc., Louisville 8, Ky.**

For more details circle #102 on mailing card.

Type PB Luminaires for Institutional Use

A complete line of fluorescent fixtures for institutional installations is offered in the new Type PB Westinghouse luminaires. The units are available in two and four lamp models in four or eight foot lengths, for mounting in continuous rows or individually, and for rapid start or slimline lamps. Soft, glare-free, semi-indirect lighting with maximum freedom from shadows results from the combination of suspension mounting, a strong

upward light component and a ribbed translucent plastic bottom.

Each luminaire consists of a completely wired steel channel, an easily removable channel cover and an extruded one-piece polystyrene shield. Lamps are easily replaced through the open top of the luminaire and the channel and plastic bottom may be removed simply for servicing. **Westinghouse Electric Corp., P. O. Box 2099, Pittsburgh 30, Pa.**

For more details circle #103 on mailing card.

Rubber-Tired Wheels for Folding Bed

The E-Z Roll Foldaway Bed is equipped with rubber-tired wheels for ease in rolling to storage or out for use. The seven inch wheels roll on or off elevators, across thresholds and over thick carpeting. The wheels swivel on bearings and the rubber tires are one inch semi-pneumatic. The folding bed is equipped with an innerspring mattress



and is readily folded or unfolded for special needs. It is available in 30 and 39 inch widths. **The Englander Co., Inc., Merchandise Mart Plaza, Chicago 54.**

For more details circle #104 on mailing card.

Low-Calorie Cake Is Low in Cost

The result of careful research, the new Gumpert Low-Calorie Cake base and cake icing has moderate material cost. It has less than half the calories of a regular cake, according to the report of a food testing laboratory, yet is delicious in flavor. The new cake with icing should prove popular for low calorie diets. **S. Gumpert Co., 812 Jersey Ave., Jersey City 2, N.J.**

For more details circle #105 on mailing card.

Individual Radio Paging Developed by Motorola

A new pocket radio paging system has been developed by Motorola for paging institutional personnel and key

(Continued on page 88)

administrative staff members. The "Handie-Talkie" Radio Paging System gives private individual paging anywhere in the institution without noise or fuss. Only the person paged is aware that a message is being transmitted.

The individual radio receiver is carried by each staff member who may be needed, when going through the institution. The receptionist or telephone operator merely presses the proper selector button to activate a particular receiver-alerting mechanism, then speaks the message into a desk microphone. The individual being paged receives the message on his individual receiver. No other receiver in the system hears either the alerting tone or the voice message.

The system consists of a selector console with individual buttons for key personnel, an FM transmitter that radiates alerting tones and the voice messages within a confined area, and the individual receivers. The selective calling method utilized is identical in principle to that developed by Motorola for individually alerting commercial or military aircraft in flight.

The receiver itself is only slightly larger than a king size package of cigarettes. It can be clipped in a pocket or worn on a belt. Its FM reception is immune to common types of interference. Battery life is approximately four 40 hour weeks. While the volume of the paged message is adequate for the paged individual to hear, it is low enough to preserve privacy and to avoid disturbing others nearby. Up to several hundred persons can be paged individu-



ally through the system by adding channel capacity as needed. **Motorola Communications & Electronics Division, 4545 W. Augusta Blvd., Chicago 51.**

For more details circle #106 on mailing card.

What's New . . .

Institutional Dishwasher Is Compact Unit

Up to 960 dishes or 1200 glasses can be handled per hour in the new Colson



institutional dishwasher. The compact unit has a $\frac{1}{2}$ h.p. single phase motor and operates on 115 volts. Dish racks in the round washing chamber are made of "plastisol" coated welded wire. The machine is designed to handle forty rack loads per hour.

A revolving jet sprayer at the top and bottom of the washing chamber creates a violent water striking force which completely cleans dishes, glasses and silverware. An electric immersion heater keeps the rinse water supply at 180 degrees. The revolving hood of the washing

chamber permits racks of dishes to be loaded at one end and removed at the other. Leg construction of the machine permits adjustment to compensate for uneven floors. **The Colson Corporation, Elyria, Ohio.**

For more details circle #107 on mailing card.

Liquid Cleanser Sanitizes Vitreous Ware

All vitreous ware can be cleaned, sanitized and deodorized in one operation with the new Holcomb Zen liquid cleanser recently introduced. Its dual action of detergent and acid results in unusual cleaning speed. Tests indicate that it quickly removes even stubborn stains and discolorations from toilets, urinals and other vitreous ware. The non-fuming cleanser is pleasantly scented and will not sting or smart the skin. A special inhibitor contained in the cleanser protects plumbing.

A new cleanser is supplied with a quart polyethylene dispenser bottle with no-drip pouring spout. The dispenser will not break and is designed to prevent slipping from the user's hands. The cleanser is shipped in quart bottles with yarn swabs. Air vents in the dispenser prevents splashing and the pouring spout directs the liquid to the swab without waste. **J. L. Holcomb Mfg. Co., 1601 Barth Ave., Indianapolis 7, Ind.**

For more details circle #108 on mailing card.

Armstrong Resilient Flooring in Variety of New Patterns

The 1956 line of Armstrong products is now available in 75 new patterns. The additions include 18 new patterns in floor tiles, 20 in linoleum, 12 in felt-base rugs and floor covering, 11 in wall covering, seven in a new rubber runner, and seven new patterns in a new combination wool, rayon acetate and fiber Deltex series called Deltone. Attractive colors and designs are features of the new line which is decorative and long wearing.

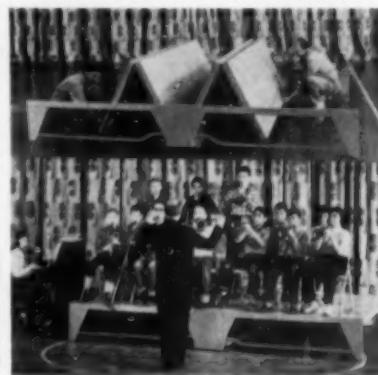
Armstrong Cork Co., Lancaster, Pa.

For more details circle #109 on mailing card.

Portable Stage Folds to 19 Inches

A new portable folding stage suited to the needs of schools and other institutions has been introduced by Midwest Folding Products.

When open the stage is 11 feet 8 inches by 8 feet and when completely folded



the stage is only 19 inches wide. It is constructed of heavy gauge steel, multi-formed for added strength. The floor is $\frac{1}{4}$ inch plywood and all parts are electro-welded. The stage has no loose parts, no nuts or bolts, and no tools are required to erect it. Four heavy duty swivel casters with rubber tires make the stage readily mobile. It is available in either 18 or 24 inch heights. **Midwest Folding Products, Roselle, Ill.**

For more details circle #110 on mailing card.

Vari-Air System for Heating and Cooling

Space saving is one advantage of the new Vari-Air system of heating, ventilating and cooling schools and public buildings. The Vari-Air system is designed to meet all health and comfort standards and at the same time is flexible, reasonable in initial cost, economical to operate, and requires little maintenance. In addition to "silent" heating and ventilating, Vari-Air provides an economical unit for practical air conditioning of institutions. **C. A. Dunham Co., 400 W. Madison St., Chicago 6.**

For more details circle #111 on mailing card.

(Continued on page 90)

THE TUITION PLAN

The Tuition Plan was founded in 1938 to provide a method by which schools and colleges may grant the convenience of monthly payments while they receive their tuition and other fees in full at the beginning of the term. More than 400 schools and colleges have become Associates of The Tuition Plan, and have thereby increased enrollments and materially reduced operating costs.

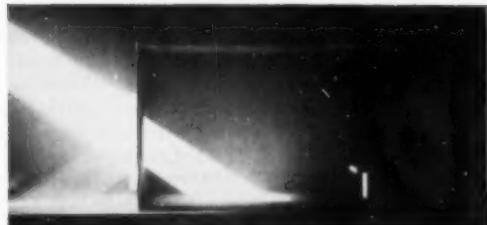
A descriptive brochure will be sent to schools and colleges promptly upon request.

THE TUITION PLAN, INC.

347 Fifth Avenue, New York 16, N.Y.



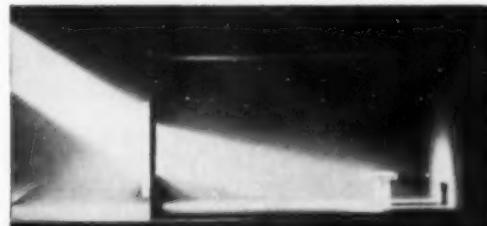
THERE'S MORE TO *daylight* THAN MEETS THE EYE



"Smoke Box" photo—window glazed with clear glass.



Diffusing glass in smoke box.



Directional diffusing glass in smoke box.

Stop Glare and Heat with Light Diffusing Glass

Like other natural resources daylight needs to be controlled to be of greatest benefit. "Raw" daylight seldom meets specific lighting needs, since it contains a host of unwanted factors that cause discomfort and inefficiency. Obtain the results you want by specifying a glass "visioneered" to meet your requirements.

Good daylighting can be achieved with a handsome, modern, diffusing pattern which disperses softened light deep into interiors, provides comfortable, even illumination without harsh glare and sharp contrasts that cause costly eye fatigue. And if excess heat is a problem, keep interiors more comfortable with Mississippi Coolite, heat absorbing, glare reducing glass, which absorbs up to 50% of solar heat rays.

In your new building or remodeling projects gain all the benefits of natural light without the drawbacks. Control "raw" daylight by specifying Mississippi Glass. Available everywhere in a wide variety of patterns and surface finishes, wired and unwired, all "visioneered" to solve your day-lighting problems.

Write today for free catalog No. 56G • Address Department 27.



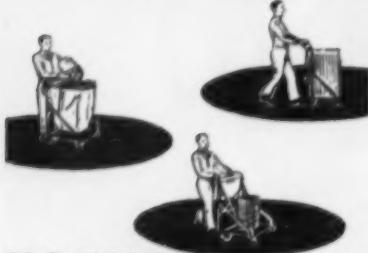
MISSISSIPPI GLASS COMPANY

88 Angelica St. • St. Louis 7, Mo.
NEW YORK • CHICAGO • FULLERTON, CALIFORNIA

WORLD'S LARGEST MANUFACTURER OF ROLLED, FIGURED AND WIRED GLASS

What's New . . .

Collect Wastepaper ... Handle Trash ... Move Supplies



YOUNGS Janitor Carts do all three!

This Janitor Cart converts instantly from bag carrier to a sturdy platform truck.

Canvas bag holds over 5 bushels; 140 sq. in. steel deck can safely handle 300 lb. loads.



Model D-90

- YOUNGS Janitor Carts roll easily and quietly, whether the load is trash, wastepaper or supplies. They will not mark the finest floors. Wastebaskets and trash cans can be emptied into the widely outstretched canvas bags quickly and without spill.
- Light in weight, YOUNGS Janitor Carts are readily carried on stairs. Ball-bearing swivel casters in front allow them to be steered with little effort.
- Available in two platform models; Model D-93 (not shown) has approximately twice the D-90 capacity in all respects. Five non-platform styles also available.

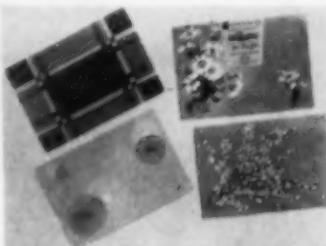
UTILITY TRUCKS FOR SCHOOLS

THE PAUL O. YOUNG CO.
School Truck Division
LINE LEXINGTON, PENNA.

Write for free catalog 5-48

Attractive Designs in Royal Lace Place Mats

Four new Royprint decorator designs are offered in Royal Lace Paper place mats. The Sunburst has a rose pink



background accented by sunbursts of gold and white. A green background with an armful of meadow daisies forms the design of the Daisies mat. A sheaf of forsythia with pussy willows on a gray background forms the Forsythia design. Block Plain features a modern conception of a plaid in grays and clear scarlet.

Colorful backgrounds in good taste are possible for tray and table settings with the new Royprint decorator design paper place mats. They provide cheery designs for spring, are inexpensive and disposable and help to dress up food service for students and personnel. Royal Lace Paper Works, Inc., 99 Gold St., Brooklyn 1, N.Y.

For more details circle #115 on mailing card.

Quarry Tile Now Available in Bluegrass Green

An addition to the line of ceramic tile products offered by Mosaic Tile Company is the new Bluegrass Green Quarry Tile. The bluish green effect in the new tile can neither fade nor wear off since it completely permeates the product. Heavy traffic floors of the new tile will thus keep their attractive color even after long wear. The new color harmonizes with other tile shades and provides a neutral background for furniture and furnishings. The Mosaic Tile Company, Zanesville, Ohio.

For more details circle #113 on mailing card.

Fluorescent Light Guards for Use in Gymnasiums

An attractive welded wire guard is now available as a protective screen for fluorescent light fixtures in gymnasiums and other areas where there is danger of damage. Light weight and strength are combined in the new guards which are constructed to meet safety requirements. No screws or other hardware are required for installing the guards. Three retaining hinges clamp it firmly over the flanged edge of the reflector with two wire clamps on the opposite side which are easily released for lamp replacement. E. H. Titchener & Co., 67 Clinton St., Binghamton, N.Y.

For more details circle #114 on mailing card.

Attractive Acoustical Tile Is Easily Maintained

The combination of the attractive appearance of Textured Acoustical Tile and the maintenance economy and efficiency of Sonofaced Tile are combined in the new Textured Sonofaced Acoustical Tile. The high light reflection created by the soft white finish of Textured Tile is encased in a plastic film which permits continued cleaning by washing and requires no painting.

Owens-Corning has developed a plastic film that duplicates the surface appearance of the Textured Tile and has light reflection ten points greater than that of the regular Sonofaced Tile. The film does not impair the noise control function of the sound absorbing Fiberglas in the tile. The new tile is fire safe and has high acoustical efficiency. It is available in 12 by 12, 12 by 24 and 24 by 48 inch ceiling board. Owens-Corning Fiberglas Corporation, Toledo 1, Ohio.

For more details circle #115 on mailing card.

Spotlight Designed for Arenas and Stadiums

The Super Trouper arc spotlight is designed by Strong Electric Corporation especially for use in arenas, stadiums, fairgrounds and large auditoriums and theaters. The Super Trouper is equipped with combination transformer and selenium rectifier, drawing 10 amperes from the 220 volt AC power source and converting it to proper DC voltage for the arc. Carbons are 6 mm by 9 inch copper coated negative and 7 mm by 12 inch copper coated positive, with burning time of one hour twenty minutes at 33 volts and 46 amperes direct current.

Throw is variable from minimum 24 inch "head spot" to maximum 75 foot "flood" at 300 foot length. The color boomerang contains six slides which are quickly inserted and released. A small



blower cools the selenium conversion units and color slides.

The vertical tilt pivot adjusts from 42 to 55 inches from the floor and the entire equipment is mounted on casters for portability with retractable legs for solid mounting. Strong Electric Corp., 52 City Park Ave., Toledo 2, Ohio.

For more details circle #116 on mailing card.

What's New . . .

Heating Unit Provides Instantaneous Hot Water

A special heating unit in the new Alpha Instantaneous Coffee, Tea and Hot Water Maker produces hot water in



a minimum of time. The Underwriters Laboratories approved unit takes water from the cold water line and produces hot water in the temperature desired, thermostatically controlled, giving a rate of flow of water that will brew a 12 cup decanter of coffee, or tea concentrate, in two minutes and 45 seconds. It produces hot water at the rate of 12 cups in a minute and three-quarters. As many decanters as desired may be filled in succession without any drop in temperature, according to the report.

The Hot Water Maker is an instantaneous electric heater which is not affected by hard water or impurities found in water. It is equipped with carbon elements which prohibit the accumulation of calcium salts, eliminating the need for replacements and cleaning. The unit is 10½ inches wide, 14 inches deep and 17 inches high. It is easily connected to cold water and electricity lines. Lyons-Alpha Products Co., Inc., 469 Broome St., New York 13.

For more details circle #117 on mailing card.

Adding-Bookkeeping Machine Uses Standardized NCR Forms

All of the basic bookkeeping tasks in a small or medium-sized business office can be handled on the new double duty adding-bookkeeping machine introduced by National Cash Register Company. Standardized NCR bookkeeping forms have been designed for use with the machine, providing a complete "package" at relatively low cost. Rapid conversion from one job to another is accomplished by interchangeable control bars. A switch at the left instantly changes it from bookkeeping into a flexible-keyboard adding machine.

Many features of higher-priced models have been incorporated into the new machine. The forms to go with the machine are made of NCR (No Carbon Required) paper, which is chemically coated to reproduce sharp, clear impressions on multiple forms without the use of carbon paper. The National Cash Register Co., Dayton 9, Ohio.

For more details circle #118 on mailing card.
(Continued on page 92)

BESELER'S VU-LYTE II OPAQUE PROJECTOR OPENS A NEW ERA FOR TEACHING EFFECTIVENESS

- VU-LYTE II Gives a Brighter Picture
- VU-LYTE II is Lighter in Weight—Smaller in Size
- VU-LYTE II Has the Pointex® Built-In Optical Pointer



THIS IS AN EXCITING NEW ACHIEVEMENT IN THE WORLD OF EDUCATION. HERE ARE JUST A FEW EXAMPLES OF WHAT THE VU-LYTE II OFFERS:

★ **VU-LYTE II DELIVERS TWICE THE ILLUMINATION (140 lumens) OF PRIOR MODELS. IT GIVES A BRILLIANT IMAGE ON THE SCREEN — SO BRILLIANT THAT THE ROOM NEED NOT BE FULLY DARKENED!** (A new F/3.6 lens and a new optical system make this possible.) The VU-LYTE II's powerful illumination shows more detail in every projected picture, permits clear and precise understanding of the copy, gives closer communication between students and studies.

★ **VU-LYTE II IS SMALLER, MORE COMPACT, LIGHTER IN WEIGHT.** VU-LYTE II is portable, convenient to use in every classroom.

★ **VU-LYTE II has the built-in optical pointer — BESELER'S EXCLUSIVE POINTEX®.** A clear sharp arrow moves at will anywhere on the screen, attracts and keeps attention where the Teacher wants... adds just the right amount of dramatic emphasis.

★ **VU-LYTE II has provisions to keep books and papers flat, in focus; elevation legs are individually spring loaded; the copy cooling mechanism is quiet; large rear-door opening accepts big 3-dimensional objects for projection, makes them easy to manipulate. (This lends vast new possibilities for projector use.)**

★ **VU-LYTE II has the FEED-O-MATIC Conveyor, another Beseler exclusive feature. FEED-O-MATIC automatically rolls the copy into position, automatically rolls it out as new copy enters. FEED-O-MATIC gives the operator smooth, untroubled performance.**

Many other exclusive features make BESELER'S VU-LYTE II the most functional of all Opaque Projectors. VU-LYTE II is a magnificent new instrument for Teaching. Write Beseler for a Free Demonstration of the all-new VU-LYTE II. No obligation, of course. Dept. U-4.

©Patented

CHARLES Beseler COMPANY
SINCE 1888
EAST ORANGE, NEW JERSEY



What's New . . .

Peabody Desk and Chair in Modern Design

The two items pictured are additions to the interesting new line of classroom



furniture designed for Peabody Seating by John Hauser Associates. The No. 70 Open Front Table has an interesting pedestal base which is strong and sturdy and gives maximum knee room for students. The roomy open book box is easily entered for books and supplies as well as for cleaning. Fibersin is used for the plastic desk top to ensure years of continued attractive appearance.

The No. 800 Single Chair has molded fiberglass seat unit which is designed for correct posture with maximum comfort. It is available in sizes 12 through 18 inches in height for various classroom needs. The sturdy steel base is

designed to withstand the hardest wear. The new units are contemporary in design, functional in purpose and attractive in appearance. They require minimum maintenance and are sturdily constructed. **The Peabody Seating Co., Inc., North Manchester, Ind.**

For more details circle #119 on mailing card.

Porcenell Writing Surface on SlatoSteel Chalkboard

SlatoSteel Chalkboard is a tough, rugged steel board which is durable, smooth and easy to see. It can be used with magnetized letters and figures for "touch and feel" learning and also facilitates posting, as on a bulletin board, because of the magnetic feature.

A patented Porcenell coating on SlatoSteel Chalkboard gives it a velvety hard surface. A special adhesive holds an absolute bond between the steel and the backing sheet. Only a 22 gauge cold rolled steel base is required for the Porcenell finish which results in a light yet strong board which is easily handled and installed. SlatoSteel is easy to install, it can be sawed and drilled on the job, and can be put up by a workman with ordinary tools. It erases clean, is renewed by wiping with a damp cloth and is fire resistant. **Beckley Cardy Company, 1900 N. Narragansett, Chicago 39.**

For more details circle #120 on mailing card.

(Continued on page 94)

Electric Folding Machine Handles Any of Six Folds

Model 57 is a new electric folding machine that can be set for any of six folds. It is easy to operate, with instructions permanently attached to the receiving tray. The operator can set the dials for any of the folds by following the simple directions. Once dials are set, the operator need make no mechanical adjustments. Folds include single, parallel or letter, accordion or statement, double parallel, French, and horizontal and then two vertical folds. Material



can be continuously fed and the machine folds up to 150 copies a minute. **A. B. Dick Co., 5700 W. Touhy, Chicago 31.**

For more details circle #121 on mailing card.

Leaves air mint fresh!

Mintol
the multi-purpose
industrial disinfectant
with the fresh mint leaf aroma

MINTOL disinfectant has a coefficient of 9. Diluted half a cup to the pail of water, it meets the new Use Dilution Confirmatory Test.

SANITIZES THE SURFACE
KILLS BACTERIA
DEODORIZES

For free sanitary survey of your premises ask your Dolge service man

DOLGE
WESTPORT, CONNECTICUT

EDWARD DON & COMPANY

Carts

for EVERY Bus Need!

1 

2 

3 

For example, (1) the all stainless steel UTILITY CART for light bussing. Eliminates carrying heavy trays and dishes. Operates silently.

The rugged stainless steel TRAY TRUCK (2) is available in 5- and 6-shelf models. Easy-gliding casters with rubber wheels that won't mar floors.

The stainless steel DISH TRUCK (3) has two deep stainless steel trays for removing soiled dishes and glassware without carrying and the added risk of breakage.

Yes, here at DON you'll find carts for every purpose. Yet, they're only a few of the 50,000 items of EQUIPMENT, FURNISHINGS and SUPPLIES to aid or improve your food preparation and serving.

Satisfaction guaranteed on every item. Write Dept. 6 about your specific needs now or ask for a DON salesman to call.

EDWARD DON & COMPANY
GENERAL HEADQUARTERS—2201 S. LASALLE ST.—CHICAGO 16, ILL.
Branches in MIAMI • MINNEAPOLIS • ST. PAUL • PHILADELPHIA • HOUSTON



STEEL FURNITURE AND LOCKERS

MODERN IN STYLE... BUILT FOR SERVICE

SINGLE-TIER LOCKERS



DOUBLE-TIER
LOCKERS

BOX
LOCKERS



No. 6647 TEACHER'S DESK

No. 6276 LIBRARY TABLE

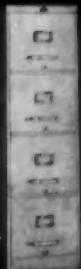
No. 810 UTILITY CHAIR

ASE Quality—Cheaper By The Year As The Years Go By

ASE Steel School Furniture keeps that "like-new" look year after year. Quality built for service and efficiency. Withstands the wear and tear of youthful activity. Bonderite treated to assure a lustrous permanent finish... anchors paint to metal, provides a corrosion-resistant surface. Lastingly beautiful and always in style. For classrooms, offices and libraries. Lockers for halls, locker rooms, field houses. Let us assist you in your planning. Write for information today.



No. 3487 STORAGE CABINET



No. 5401 FILE



No. 6629 PRINCIPAL'S DESK



No. 835 PRINCIPAL'S CHAIR



No. 840
Secretary's
Chair



No. 540
Drafting
Chair



Blueprint File



There's an ASE dealer near you

ALL-STEEL EQUIPMENT INC.

Aurora, Illinois

What's New . . .

Steam Cooker for Cafeteria Pans

Hot plate luncheons or dinners can be easily and quickly served in quantities



with the new multi-purpose Cafeteria Pan Steam Cooker. Foods are portioned and arranged on standard 18 by 26 inch bake pans and placed in the steamer compartments. Cooked food portions are ready for transfer to service plates in three minutes. The steamer is also suited for cafeteria use in addition to quantity portion cooking. Food can be steam cooked in standard cafeteria pans and placed directly on serving tables, reducing handling, cleaning and scouring of pots and pans. Small-lot cooking is also fast and convenient in the new cooker.

The Cafeteria Pan Steam-Chef is designed for gas, electric or direct steam operating. It is built to accommodate

twelve standard 12 by 20 inch or 24 half-size cafeteria pans. It can also be used with standard steaming baskets or with 18 by 26 inch trays. **The Cleveland Range Co., 3333 Lakeside Ave., Cleveland 14, Ohio.**

For more details circle #122 on mailing card.

Soundview Projector in 500 Watt Model

The new 500 watt Soundview "PhD" filmstrip and slide projector is designed primarily for use in schools and colleges. It features ease of operation and rugged construction. The modern, lever-action film advance is an easy to operate, positive and quick manual film advance mechanism. The facility and speed with which the filmstrip can be reviewed is another feature of interest in teaching.

Other features of the new model include separate switch for the fan to permit after-cooling and a unique air duct blowing cool air directly to the film aperture, eliminating the possibility of film damage due to overheating. The cooling system is so efficient that neither operator nor viewer can be burned through contact with any part of the machine. The Soundview "PhD" is unusually lightweight and compact. **Automatic Projection Corp., 282 Seventh Ave., New York 11.**

For more details circle #123 on mailing card.

Wall Projection Screen Has Safety Lock

Designed specifically for classroom use, the new Educator Wall Projection Screen has an automatic roller lock which ensures smooth roller action, even hanging of fabric and protection against the fabric being pulled beyond the picture edge. Vyna-Flect flame and mildew proof glass-beaded fabric is used in the new screen which is available in six sizes, from 37 by 50 inches to 70 by 70 inches. The Educator Wall Model has a new functional "teardrop" design case for



maximum strength and stability. It is designed for mounting either on the wall or the ceiling. **Radiant Mfg. Corp., 2627 W. Roosevelt Rd., Chicago 8.**

For more details circle #124 on mailing card.



Used by many of the leading colleges and universities throughout the country

POWER LAWN MOWERS

-designed for easy handling to save time, money and physical exertion!

Mowing problems, particularly on large, irregular lawns, where borders, shrubbery and undulations prove impractical for ordinary mowers, a LOCKE will not only cut, but trim too... eliminating streaks of rolled down, uncut grass. Turns at any angle without raising the cutting units.

Yes, a LOCKE does a complete job *in one operation.*

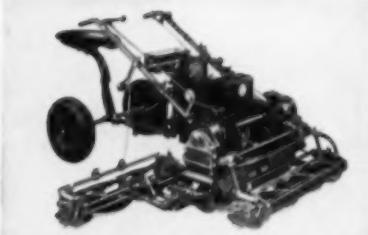
ASK FOR A DEMONSTRATION TODAY! You'll see why, in a matter of minutes, a LOCKE is the mower for you. Sold only through selected dealers who have the ability and facilities to give prompt and competent service. Complete prices, specifications and literature available upon request.

Since 1928

THE LOCKE STEEL CHAIN CO.

LAWN MOWER DIVISION
1321 CONNECTICUT AVE. BRIDGEPORT 1, CONN.

25" & 30" Models Popular mowers for small areas, because of their lightweight construction. Riding Sulkies are available and easily attached. At 3 mph the 25" cuts $\frac{1}{2}$ acres an hour; the 30" cuts $\frac{3}{4}$ acres per hour. Built to S.A.E. Standards.



70" & 75" Models Full floating, counter-balanced units, follow the contour of the lawn. In minutes you raise the side units to vertical position for transporting and storage. At 3 mph the 70" cuts $1\frac{1}{2}$ acres an hour; the 75" cuts 2 acres per hour. Built to S.A.E. Standards.

What's New . . .

Refrigerated Milk Dispenser Is Self-Leveling

Automatic dispensing of milk containers at convenient counter level is provided with the new Lowerator Mobile Refrigerated Milk Dispenser. It can be easily wheeled into counter openings or adjacent to serving lines and accommodates milk cartons or bottles of any size or shape. The all-swivel casters and the handle facilitate positioning.

The mobile, compact, self-contained unit features sanitary, refrigerated interim storage. The calibrated spring



mechanism keeps the top rack always at the same convenient level, whether the unit is full, half-filled or nearly empty. The dispenser is of all stainless steel

construction with the dispensing unit, compressor, evaporator and thermostat completely enclosed. The new unit has Underwriters Laboratories approval, according to the manufacturer. **American Machine & Foundry Co., Lowerator Div., 261 Madison Ave., New York 16.**

For more details circle #125 on mailing card.

Heavy Duty Switches in Quiette Line

Designed to meet the need for a small sized switch with additional switch capacity, the new heavy duty Interchangeable Quiette line has alloy silver contacts that will carry substantial loads. It provides quiet, safe operation of both incandescent and fluorescent lights and appliances through mechanical action. A specification grade switch, it is offered with Screw Terminals in single or double pole, three way or four way, with brown or Ivorylite handles. **The Arrow-Hart & Hegeman Electric Co., 103 Hawthorne St., Hartford 6, Conn.**

For more details circle #126 on mailing card.

Nickel-Chrome Plate on Food Service Pieces

Coffee and tea service, casseroles and other food service pieces are now available with an attractive protective plate

(Continued on page 96)

of nickel-chrome. Platecraft Metal-Clad Chinaware has a hard shell of protection which is attractive and durable and keeps beverages piping hot longer than un-



plated ware. The attractive service is available in a gleaming luster or a rich satin finish. The coating will not tarnish, requires no polishing and does not have to be replated. It rinses sparkling clean in a dishwashing machine and requires minimum care. Since only the exterior surfaces are metal clad there is no possibility of metallic contamination of beverage flavors.

The metal-clad chinaware is made by a secret Swedish process. It is designed especially for institutional use and is available in coffee pots, tea pots, sugar bowls, creamers and casseroles in a wide selection of styles. **Platecraft of America, Inc., 43 Pearl St., Buffalo 2, N.Y.**

For more details circle #127 on mailing card.



Arm Chair

No. 505

Also available, a wide assortment of chairs and tables for dormitory, social room, dining room and other uses.

See your dealer or write us for our distributor's name.

**AMERICAN
CHAIR COMPANY
MANUFACTURERS**
SHEBOYGAN, WISCONSIN

PERMANENT DISPLAYS: Chicago — Space 1650, Merchandise Mart
New York — Decorative Arts Center, 305 East 63rd St. (19th Floor)
Boston — 92 Newbury Street

INCREASE ROOM FUNCTIONS

Abbott Hall, Northwestern University
James Gamble Rogers, Arch.

with **Fairhurst Unitold[®]**
T.M. Reg.
FOLDING WALLS

This installation at Northwestern University illustrates the practical flexibility of space arrangement possible with a Unitold Wall. Lounge and dining hall may be quickly separated by a rigid, sound-resistant wall that permits simultaneous use of each. For student dances or meetings the wall units fold out of the way to allow clear access between rooms. Used almost daily since 1938; no maintenance required. There is no need for expensive mechanical equipment with Unitold—all installations are easily operated by one man regardless of size or number of units. Write us.

Photo above shows: center—units partially closed; right—units folded and stacked.

John T. Fairhurst Co., Inc.

45 West 45th Street

New York 36, N.Y.

What's New ...

Lowden Elementary School, Cleveland, Ohio
Architects: Spahn & Barnes, Cleveland Heights
Photo by R. Marvin Wilson, Cleveland

In Cleveland

Practical utility and economy go hand in hand in elementary school planning. The architects strikingly achieved this goal, while specifying throughout equipment of proven dependability. Naturally, Halsey Taylor fountains were selected. The Halsey W. Taylor Co., Warren, O.

HALSEY
TAYLOR

America's Favorite Fountains

Attractive wall fountain, one of many in Halsey Taylor line

5-49

Floor Machine Lock Facilitates Stair Climbing

Easy transport up and down stairs of the new Advance Pacemaker Floor Machine is made possible by the "Retracto-



"lock" feature. The wheels are raised by a spring-actuated lever and lowered with an easy foot movement. When locked in the up position, the machine is easily transported up and down stairs with minimum effort.

Designed for heavy duty polishing, waxing, scrubbing, steel wooling and shampooing, the machine has a low front housing to permit working under recessed baseboards, beds and other furniture and equipment. The "Silent Flo" drive is another Advance feature which drives the brush through a silent, positive, greaseless transmission. The handle of the new Pacemaker is fully adjustable for use and storage and the machine is equipped with a dual control safety switch. Advance Floor Machine Co., 2613 4th St. S.E., Minneapolis 14, Minn.

For more details circle #128 on mailing card.

1st Step to LOWER FLOOR CLEANING COSTS



Floor-King
Mopping Outfit
for mops to 36 oz.

Make floor cleaning fast, easy and efficient the Geerpres way and watch costs drop. What's more, with Geerpres wringers, your mops last longer and do more work. Exclusive interlock gearing gives powerful but controlled squeezing action to force mop down and eliminate splashing. Wring a mop as dry as you please without twisting or tearing in a Geerpres wringer.

Ruggedly constructed Geerpres wringers are made from the finest materials for long life. Electro-plated finish on all wringers is exclusive with Geerpres. Yet they are light, compact and so easy to handle on ball-bearing rubber casters. Sizes and styles for every mopping need. Complete line of accessories, too. Write for complete catalog or see your nearest jobber.

GEERPRES WRINGER, INC.
P.O. BOX 658

MUSKEGON, MICHIGAN

Awning Window Electrically Operated

An aluminum awning window is now available which is electrically operated. The result of several years of study and experimentation, the new "Push-Button" Window has proved practical in actual installations. The window opens and closes with quiet, positive movements. The control button may be located on the sill or near the window in an easily accessible place. If desired, the window may be controlled from a central switch remotely located. Any number of units can be wired to the same circuit for simultaneous remote control of all windows in the building.

Limit switches prevent over-operation of the windows. A built-in clutch disengages the motor for crank operation in case of power failure or if manual operation is desired. The electrically operated window is especially practical for clerestory or other high window installations or large banks of windows in special areas. Gate City Sash & Door Co., P.O. Box 901, Fort Lauderdale, Fla.

For more details circle #129 on mailing card.

(Continued on page 98)

Check this modern chair!

...and know why
Krueger's Series 100
gives you
better performance
at lower cost!



**FOR SIZE, COMFORT AND
SERVICE THIS CHAIR MEETS ALL REQUIREMENTS**

One of the most comfortable folding chairs of all—and certainly the *best value* per dollar expenditure! Strong, rigid and durable, its electrically seam-welded tubular steel frame is specially designed and constructed to provide many years of the hardest kind of usage. Unusually safe, too, there are no sharp edges, corners or exposed mechanisms to pinch the occupant or tear one's clothing — no danger of chair accidentally tipping if seated well forward or far back. Beautifully finished in Beige, Azure Grey or Saunders Green baked-on enamel. Steel or wood veneer seats. Write for new special, detailed brochure.

**HEAVY GAUGE
TUBULAR FRAMES**

Note reinforcing of seat pivot points with $\frac{3}{8}$ " vertical frame strengtheners for stronger support — more rigid bearing points to secure seat pivot rod — prevent frame spreading.

**LARGER,
ROOMIER SEATS**

Choice of contour shaped and drawn one-piece steel seat $15\frac{1}{2}$ " wide by 16 " deep or two-way contour shaped wood veneer seat with sloping forward edge for maximum comfort.

**SIMPLIFIED,
QUIET CLOSING**

A light push downward on the backrest and chair opens—an upward lift and it closes. No other chair operates so easily, so smoothly! Folds flat to double frame thickness.



Write

For new, complete line catalog
No. 600 as well as brochure 100.

KRUEGER
METAL PRODUCTS • GREEN BAY • WISCONSIN

SPENCER

KNOW-HOW BRINGS A BONUS OF

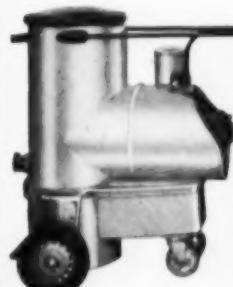
MORE CP PER DOLLAR

CLEANING POWER

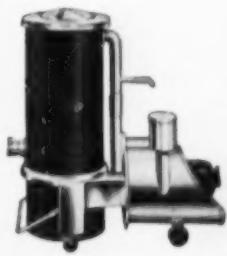
A COMPLETE LINE OF COMMERCIAL PORTABLE VACUUM CLEANERS

Demonstration proves a Spencer Commercial Portable will get **MORE DIRT**, getting it **FASTER** and with greater **EASE** of handling.

That is because no corners are cut in the design and manufacture of Spencers. They are **FULL-POWERED**, continuous-duty, rugged commercial-industrial equipment . . . the very best that the field can produce. The line is **COMPLETE** . . . the **RIGHT** machine and the **RIGHT** tools for your job. Get the facts and compare before you buy. Prices? Competitive and to meet the budget.



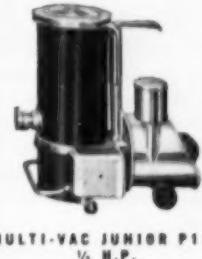
COMMERCIAL P125
1 H.P.



MULTI-VAC SENIOR P115
1/2 H.P.



SPENCER P115
1/2 H.P.



MULTI-VAC JUNIOR P111
1/2 H.P.

THE SPENCER TURBINE COMPANY • HARTFORD 6, CONNECTICUT

DEPT. CU

SPENCER
HARTFORD

Please send details on Models:

P125 P115 P111 P118

Name & Title _____

Company _____

Address _____

What's New . . .

Telephone System for Internal Communication

The new Kellogg Push-Button Intercommunications 6-PB System is designed



for institutions with limited requirements. It provides a low cost, efficient telephone system for direct contact at the press of a button. It allows direct connections between all telephones in the system and individual ringing for each station. Conference facilities are also provided, permitting "round table meetings" between all stations without anyone leaving his desk.

No switchboard equipment is required since the Kellogg 6-PB is an "inside" telephone system. It is completely independent of the city telephone system, is low in cost, simple to install and is

built to provide years of trouble-free service with a minimum of maintenance. A choice of desk or wall telephone instruments is available, as well as an optional system including voice signal paging. **Kellogg Switchboard & Supply Co., 79 W. Monroe St., Chicago 3.**

For more details circle #130 on mailing card.

Transistor Radio Kit Features Printed Circuit

Knight-Kit Transistor Radio offers the experimenter, student or beginner in electronics a unique kit package that delivers loud, crisp headphone reception of the entire broadcast band. The entire unit is small enough to fit into the palm of the hand and demonstrates the time-saving convenience of modern, printed circuit techniques.

The kit, featuring a printed-circuit component mounting board that eliminates all wiring and reduces soldering to only a few connections, can be assembled by even the most inexperienced beginner in a matter of minutes. Operating power is supplied by a single, penlite battery which will last for months under normal use. A specially designed coil that provides remarkably good selectivity is an important feature of the Knight-Kit transistor radio. **Allied Radio Corp., 100 N. Western Ave., Chicago 80.**

For more details circle #131 on mailing card.

(Continued on page 100)

Milk Can Cart Facilitates Dispenser Loading

Handling and lifting of bulk milk cans for dispensing milk in vendors is minimized with use of the new Meterflo Milk Can Cart. It is designed for use in loading all floor model Meterflo Bulk Milk Dispensers and easily transports five or ten gallon dairy cans from storage room or truck to the dispenser. A roller type elevator raises the milk can to loading position at the dispenser. A hand crank is turned to move the elevator and the can upward for positioning in the dispenser cabinet. Once the can



is in position in the dispenser, the cart is backed out of the way and the dispenser is adjusted for use. **Meterflo Dispensers, 627 Grove St., Evanston, Ill.**

For more details circle #132 on mailing card.

MAYLINE

STRETCH
Your Classroom
Furniture Budget

C-7702 ART TABLE

Have budget troubles? Can't obtain enough tables? Let Mayline show you how to buy basic equipment now and add completing units later, ease budget strain.

C-7703B is complete table. Units can be purchased separately. Buy basic table C-7703. Later add board storage unit C-7720, finish with drawer unit C-7721. Or, buy table C-7702. May we quote prices?

Symbol of Superiority

MAYLINE COMPANY
525 N. Commerce St., Sheboygan, Wis.

C-7702 ART TABLE

C-7703B DRAWING TABLE

Full Size Chest

Full Length Bed

NEW...TWO-IN-ONE
DORMITORY CHEST BED

Ideal for use in dormitory room, where space is a factor. Bed is standard dormitory width, 3'0" x 6'6" with extremely durable and comfortable spring construction. Chest is 36" wide x 20" deep x 15" high—has two large, deep drawers. Bed ends and chest are made of solid Canadian birch, finest quality and finish. Mounted on rubber wheel ball bearing casters to facilitate moving.

FOR COMPLETE DETAILS
WRITE FOR
LEAFLET 1065DB

E-7

EICHENLAUBS
Contract Furniture

3501 BUTLER ST. PITTSBURGH 1, PA.

ESTABLISHED 1873

Tinolan does **MORE** than clean carpets

Restores resiliency and conditions wool fibers
that have been matted by traffic and scrubbing.

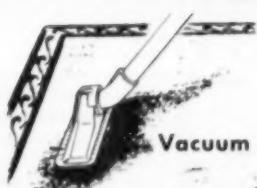
AND

costs less than usual methods . . . less money
. . . less work . . . no expensive equipment.

Tinolan process was developed
in a leading Museum to restore
priceless wool fabrics.

Write for FREE Carpet Booklet.

**3
easy
steps**



Carpets and rugs are cleaned without removal

Does not wet the warp,
dries quickly without
shrinkage or "wet" odors.
It moth-proofs too. Rugs
and carpets are back in
use quickly. Write NOW.

TINOLAN

Cleans, Conditions, Mothproofs rugs or carpets in one easy operation

THE TINOLAN COMPANY OF AMERICA, INC., WALLINGFORD RD., MEDIA, PA.

What's New . . .



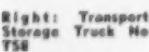
Direct Prices &
Discounts to
Schools, Churches,
Clubs, Lodges and
All Organizations



Full line of
folding chairs



Above: Transport-
Storage Truck No.
TSC



Right: Transport-
Storage Truck No.
TSE

MONROE TRUCKS

Transport and store your folding tables and chairs the easy, modern way with Monroe All-Steel Trucks. Each truck is designed to handle either tables or chairs. Construction of Truck No. TSC permits storage in limited space.



**WRITE FOR CATALOG,
PRICES AND DISCOUNTS**

THE MONROE COMPANY
77 CHURCH STREET, COLFAX, IOWA

AUTOMATIC PARKING for SCHOOLS



PARCOA

with exclusive
"CARD-KEY"

CONTROLS CAMPUS PARKING WITHOUT ATTENDANTS

This PARCOA system controls private parking areas—automatically. Pays for itself through labor savings. Coded "card-keys" actuate mechanism to control gates. Safe, dependable. Negligible maintenance. Now serving universities everywhere. Color-sound movie available for private showing. Write for literature today.

PARCOA

Division of Johnson Fare Box Company

4618 N. Ravenswood Ave., Chicago 49, Ill.
Phone Longbeach 1-0117
Sales and Service Offices in Major Cities
Listed under BOWSER, Inc.

Typewriter Stand Is Adjustable in Height

Speed and efficiency can be increased and fatigue eliminated when the type-



writer is at the proper working level for students. Adjustments are quickly and easily made by turning the "Fold-Away" adjusting knob located beneath the right front corner of the new Hardware Engineering Adjustable Typewriter Stands. There are no exposed moving parts in the adjusting unit which permits four inch adjustments from 26½ to 30½ inches.

Made of braided one inch steel tubing, the stand is sturdily constructed for hard use. Tops are furnished in "Duron" and are also available in Fibresin plastic or hard maple. The 24 by 36 inch top gives space for papers and other work beside the typewriter. Adjusting glides keep the table level on any floor. It is also available with two inch casters if desired. Hardware Engineering Co., Inc., Metal Furniture Division, Garrett, Ind.

For more details circle #133 on mailing card.

Electric Collator Has 24 Bins

A new 24 bin electric collator has been added to the Collamatic Corporation's present line of inexpensive collating equipment. The new model "2400" for preparation of catalogs, manuals, reports and house organs consisting of many pages will result in considerable saving of labor. The collator is equipped with two fingertip starters, each activating its own individual set of 12 bins, so that it can be operated by one or two persons. Collamatic Corporation, Wayne, N.J.

For more details circle #134 on mailing card.

Super Selvage on Name Woven Towels

A new super selvage, with exceptionally high tensile strength, is now being produced on name woven turkish towels manufactured by Dundee Mills, as well as on most of the plain white Dundee turkish towels. Said to be stronger than the average hemmed or turned selvage, the new weave was developed to eliminate the possibility of retention of washing chemicals in the fold of hemmed or turned selvages, and the unevenness of shrinkage. Dundee Mills, Griffin, Ga.

For more details circle #135 on mailing card.
(Continued on page 102)

**MAAS-
ROWE**

AMERICA'S BEST KNOWN NAME IN Chimes & Carillons

Year after year, more schools, churches and institutions select Maas-Rowe bells, chimes and clock systems than any other make. The more than 25,000 installations attest to their superiority.

HEARING IS BELIEVING! If you are considering the purchase of bells, chimes or accessories, regardless of size, insist on hearing the actual instrument. Let your own ears be the judge.

One of our nearby dealers
will be glad to arrange a
demonstration. Write for
complete details . . .



3015 Casitas Ave.
Los Angeles 39, Calif.

INVESTIGATE THESE *very good REASONS* WHY YOU SHOULD INSTALL

SANITARY
NAPKIN
DISPOSAL
SERVICE



1 Attracts Discreet Feminine Travelers
Sanibag Service provides a modest means of sanitary napkin disposal. Pleasing to discreet women.

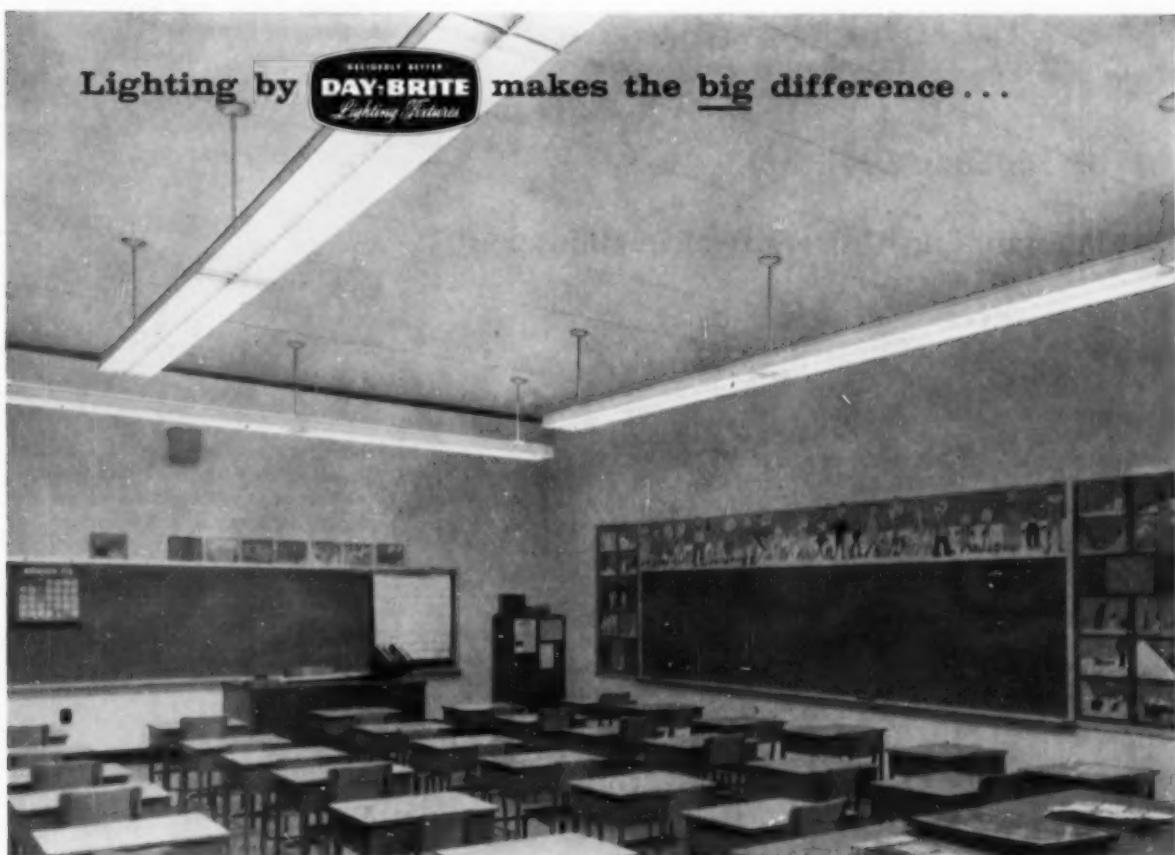
2 Avoids Costly Toilet Stoppages
Sanibag Service pays off in money saved in plumber's bills. Overall maintenance costs are thus reduced.



HYGIENE
INNESS
Attractive cabinet
dispenser makes use of
Sanibags convenient and
economical. A must in
Motels and all public
buildings.

Write for FREE SAMPLE and
complete information.

Bair & Company
407 SOUTH GREEN STREET
CHICAGO 1, ILLINOIS



Typical classroom, Jeffery Public School, Pittsburgh, Pa. Trefry Engineering, Designers and Engineers; Walter Electric Co., Electrical Contractors.

For tomorrow's citizens . . . Day-Brite lights the way

Education has advanced far beyond the "3-R's" stage. So has school lighting by Day-Brite—as is fully evident from the photographs shown here.

The Jeffery Public School, at Pittsburgh, is another of many examples of how the famous Day-Brite LUVEK-U® is lighting the way for tomorrow's citizens. Note the uniform over-all illumination these fixtures provide—on desk tops, table tops, chalk boards. They assure comfort in seeing, relieve eye-strain and fatigue, do a full-time job of protecting students' priceless sight.

Before you decide on any phase of school lighting or relighting, consult your Day-Brite school-lighting representative. You'll find him in your classified phone directory. Or, send for school-lighting data.

61129



View of board room, Jeffery Public School, Pittsburgh, Pa.



Day-Brite Lighting, Inc.
5452 Bulwer Ave.
St. Louis 7, Missouri
In Canada: Amalgamated
Electric Corp., Ltd.
Toronto 6, Ontario



NATION'S LARGEST MANUFACTURER OF COMMERCIAL AND INDUSTRIAL LIGHTING EQUIPMENT

What's New . . .

Folding Table and Bench Unit Is Readily Portable

Celebrating its twenty-fifth year of service to the school field, Schieber Sales Company announces the "Transi-Fold"

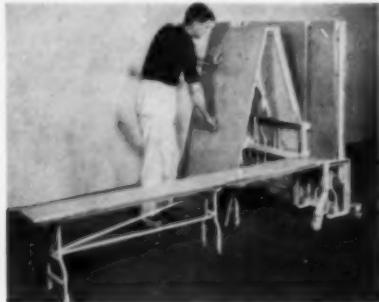


table and bench unit which is easily moved to place of need. The new portable unit seats up to 24 persons when unfolded. Two tables and four benches fold compactly into an open channel type carrier which is an integral part of the assembly. Oilless bearing rubber casters make it quietly mobile with a minimum of effort.

Welded steel tubing in the understructure makes the unit exceptionally strong and sturdy. The $\frac{3}{4}$ inch plywood tops have pressured laminated plastic surfaces and extruded aluminum edge trim. The new Transi-Fold unit occupies minimum storage space. It can be easily rolled into gymnasiums or other areas with multi-purpose use or into classrooms to supplement seating.

The Transi-Fold anniversary model with the carrier an integral part of the unit rounds out the line of folding table and bench units manufactured by Schieber. The line includes the In-Wall units which are installed permanently in wall pockets, the Port-A-Fold which is installed in a wall pocket but may be detached for use in other areas, and the Mobil-Fold which is portable but may be detached from its carrier. Schieber Sales Co., Detroit 39, Mich.

For more details circle #136 on mailing card.

Sterilizing Baskets for Immersion Washing

Special baskets for use in sterilizing glassware and also chinaware are offered for immersion washing. The plastisol coated insert surrounded by a protective wire frame protects china and glassware against contact with metal, for longer life. The coating on the insert reduces noise and shock. The outer shell has two heavy reinforcing rods on the two sides where most wear takes place. The reinforcement keeps the mesh insert from being forced out of shape. The insert can be removed and another inserted should it wear out. Metropolitan Wire Goods Corp., 70 Washington St., Brooklyn 1, N. Y.

For more details circle #137 on mailing card.
(Continued on page 104)

Memo from:

THE FEDERAL EQUIPMENT CO.

Subject:

Mail Handling-University of Rochester

The River Campus of the University of Rochester at Rochester, N. Y., houses the College of Arts and Science and University School, a division which offers late afternoon and evening classes. The Arts College has a total of 2,283 undergraduate and graduate students. The number registered in University School is 2,212, most of them part time students. In addition there are 262 faculty members and 519 non-academic employees on the River Campus.

The River Campus Post Office, designed and installed by The Federal Equipment Company, is located in Todd Union, the student activities building. It has 720 combination lock boxes for students and 15 larger boxes for campus organizations such as the student newspaper.

During the first full month in which it was in operation, November, 1955, the post office station handled approximately 4,000 incoming and outgoing packages, 60,000 incoming letters and 38,000 pieces of third class mail.

The Federal Equipment Company has assisted colleges and universities throughout the country in helping them to design their post office layouts and furnishing them with post office equipment.

May we be of service to you? A note on your letterhead will bring our catalog.

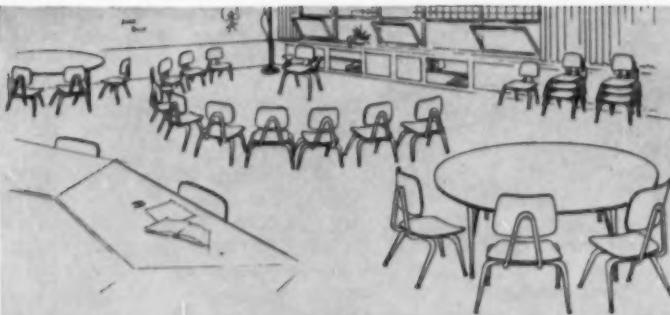
Cordially
THE FEDERAL EQUIPMENT COMPANY

RAC:JCM

R.A. Craig
Robert A. Craig,
General Manager

refer all correspondence to
THE FEDERAL EQUIPMENT CO.
CARLISLE, PENNSYLVANIA



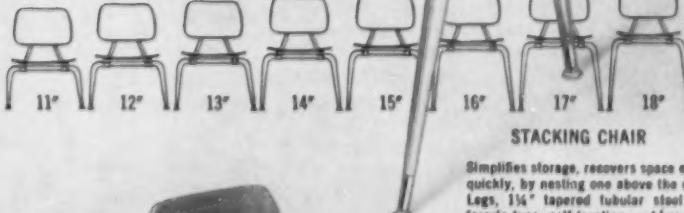


SCHOOL FURNITURE BY KUEHNE ...ultimate in styling, (SAY "KEE-NEE") quality and lasting value!

This is furniture that surpasses the demands of forward-looking school planners—furniture of graceful, functional design, as beautiful as it is practical—furniture made for comfort and fatigue-free learning—that defies the abuse of time—that resists the wear and damage of continuous daily use—that offers the utmost in service and delivers much more in value than its modest cost implies. For this is Kuehne classroom furniture—an achievement culminating 33 year's experience.

Write for NEW full-color catalog

EIGHT
SIZES:



STACKING CHAIR

Simplifies storage, recovers space easily, quickly, by nesting one above the other. Legs, $1\frac{1}{4}$ " tapered tubular steel with ferrule-type self-leveling, rubber-cushioned glides. Seat and back, 5-ply hardwood impregnated with water-resistant resin. Three colors and satin chrome.

CAFETERIA
ALL-PURPOSE CHAIR

Identical to stacking chair except leg spread is reduced for placing closer together. 16" and 17" heights only. Non-stacking.



MANUFACTURING CO. • MATTOON, ILLINOIS
World's Largest Manufacturer of Tubular Furniture

Another Kuehne Exclusive!



Self-leveling glides of stainless steel always stay level, even when furniture is tilted; won't mar floors; are completely interchangeable.

DISTRIBUTORS: Inquire about the few choice territories still open.

What's New . . .

Product Literature

- Control consoles for central sound systems are described and illustrated in Catalog S.130 offered by the Radio Corporation of America, Building 15-1, Camden 2, N.J. The six-page catalog is written in non-technical language and gives complete application information with descriptive details on the basic functions of a single channel sound control console. Several variations of RCA single channel consoles are shown in the illustrations and technical specifications and a dimension drawing are included.

For more details circle #138 on mailing card.

- Useful facts for the buyer of floor maintenance machines are interestingly presented in a new eight page catalog available from The American Floor Surfacing Machine Co., 518 S. St. Clair St., Toledo 3, Ohio. Complete specifications are given on the rotary-type machines and information is presented on the evolution of the all-new line of machines. Line drawings illustrate product features based on user research, and action photographs show the machine in actual use. Fourteen points to check before buying a floor maintenance machine are given in the catalog which also gives data on attachments available.

For more details circle #139 on mailing card.

- Reading time of five minutes is indicated for the eight-page booklet entitled "A Boiler Room Ballad . . . or how they saved money for salaries." Presented in dialogue style, the booklet gives an imaginary conversation between a school superintendent and an informed custodian explaining cost savings in the operation of a school heating plant. A cartoon technic is used in the illustrations in the folder which is designated as booklet 541 and is available from Illinois Engineering Co., Div. of American Air Filter Co., 2035 S. Racine, Chicago 8.

For more details circle #140 on mailing card.

- Modern design in laboratory furniture of all types is shown in the new catalog issued by Metalab Equipment Co., Hicksville, Long Island, N.Y. The catalog covers new sectional units, table top materials and special units for the laboratory. Furniture and equipment for educational needs are fully covered in the booklet entitled "A Vision of Your Future Laboratory."

For more details circle #141 on mailing card.

- A complete, illustrated, technical and specification lighting catalog has been published by the Cold Cathode Lighting Corp., 42-40 27th St., Long Island City 1, N.Y. Designed to give the basic data required by administrators, architects and engineers, the multi-colored catalog discusses the numerous uses of cold cathode lighting. Each section is fully illustrated.

For more details circle #142 on mailing card.

- Manual 800, "Tile for Swimming Pools," is designed as an aid to the planning and construction of an indoor swimming pool. The latest recommended standards for indoor pools as approved by the Amateur Athletic Union of the United States, National Collegiate Athletic Association and the YMCA are presented in the booklet. A number of detailed drawings giving cross-section and elevation details of curb tops, rims and ladder recesses for competitive and other types of pools are also included in the 12 page manual. Plan and elevation views for complete layout of a competitive pool are given in the center spread of the booklet which also has basic tile specifications for both indoor and outdoor swimming pools. Specifications and technical references were prepared in collaboration with Harold R. Sleeper, F.A.I.A. and the booklet is available from American-Olean Tile Co., 1000 Cannon Ave., Lansdale, Pa.

For more details circle #143 on mailing card.

- Bulletin 339 issued by Precision Scientific Co., 3737 W. Cortland St., Chicago 47, gives descriptive information on the Precision Dual Range Low Temperature Cabinet. Designed especially for near-room temperature operation, the cabinet, for biologicals and other products, has external controls, a large working chamber, and is safe with volatiles. The all-welded cabinet is of heavy gauge steel with baked white porcelain enamel interior which is acid resistant.

For more details circle #144 on mailing card.

- One solution to the problem of the use of parking areas by authorized personnel, faculty and students is discussed in a new folder on "WRRS Electric Parking Gates," released by Western Railroad Supply Co., 2428 S. Ashland Ave., Chicago 8. Installations to fit varying needs are discussed and mechanical and construction features of Model 200-PL Electric Parking Lot Gate are included.

For more details circle #145 on mailing card.

- "The Logic of Stoker Heating" is the title of a 12 page brochure available from The Will-Burt Company, Orrville, Ohio. Special attention, including a study of 18 schools, is given to the problems of heating schools and other public buildings. The brochure discusses in simple and practical language the reasons for considering safe, dependable and economical stoker-fed coal heat. The text is illustrated with photographs of schools using Will-Burt Stokers.

For more details circle #146 on mailing card.

- A free wall chart on daily and other periodic care of all types of floors is offered by The Fuller Brush Company, 3580 Main St., Hartford 2, Conn. Eight steps which will cut floor cleaning costs are listed in the chart.

For more details circle #147 on mailing card.

- A new 40 page catalog, "Recommended Recordings for Schools and Libraries," is available from Califone Corporation, 1041 N. Sycamore Ave., Hollywood 38, Calif., manufacturer of school phonographs and transcription players. Prepared by the staff of music educators of the Children's Music Center of Los Angeles, the catalog contains a list of recordings carefully selected and arranged according to classroom units and is designed to provide for easier use of records in education. The records range from nursery through elementary school, junior and senior high school through college and cover a variety of subjects.

For more details circle #148 on mailing card.

- A new 24 page brochure on the subject of higher voltage distribution systems for secondary networks in institutions has been published by General Electric Co., Distribution Assemblies Dept., Plainville, Conn. Intended primarily for areas now having higher voltage utility service available for secondary networks, it outlines the trend of using the higher voltage systems in both new structures as well as older buildings requiring complete electrical overhauls.

For more details circle #149 on mailing card.

- "Flying Saucers" is the intriguing title given to the booklet on dish handling prepared by Economics Laboratory, Inc., 250 Park Ave., New York 17. The booklet represents the results of a three year study as well as field experience in the breakage problem. It is a guide and reference to information presented in two new films developed by the company, "Flying Saucers" and "Spotlight Breakage." Helpful information on how to reduce breakage of dishes and glassware is presented in the booklet.

For more details circle #150 on mailing card.

- How to repair stair treads that are worn and dangerous is discussed in a folder released by Wooster Products Inc., 100 Spruce St., Wooster, Ohio. The leaflet, "Making Stairs and Walkways Safe," shows the complete selection of Wooster extruded and cast metal safety stair treads for stairway repair.

For more details circle #151 on mailing card.

Supplier's News

- The Brunswick-Balke-Collender Co., 623 S. Wabash, Chicago 5, announces the formation of an Educational Research Department. Dr. Russell E. Wilson, authority on educational equipment and its relation to modern teaching methods, will serve as consultant to the new department. A number of leading educational specialists from elementary, secondary and college levels will work with him. Primary objective of the new department will be to relate the Brunswick line of desks, chairs, tables, cabinets and other school equipment to the changing needs of modern teaching methods.

PRO

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PERMIT NO. 136
SEC. 24.9 P. L. & R.

BUSINESS REPLY CARD

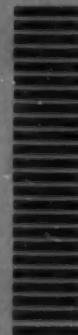
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Detach and mail—no postage required.

April, 1936

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

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NAME _____

TITLE _____

INSTITUTION _____

ADDRESS _____

CITY _____

ZONE _____

STATE _____

April, 1936

Please ask the manufacturers, indicated by the numbers I have circled, to send further literature and information provided there is no charge or obligation.

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150	151					96a	97a	97b	98a	98c	98d	99a
						99	100a	100b	100c	100d	101	
						102	103	Cov. 2	Cov. 3	Cov. 4		

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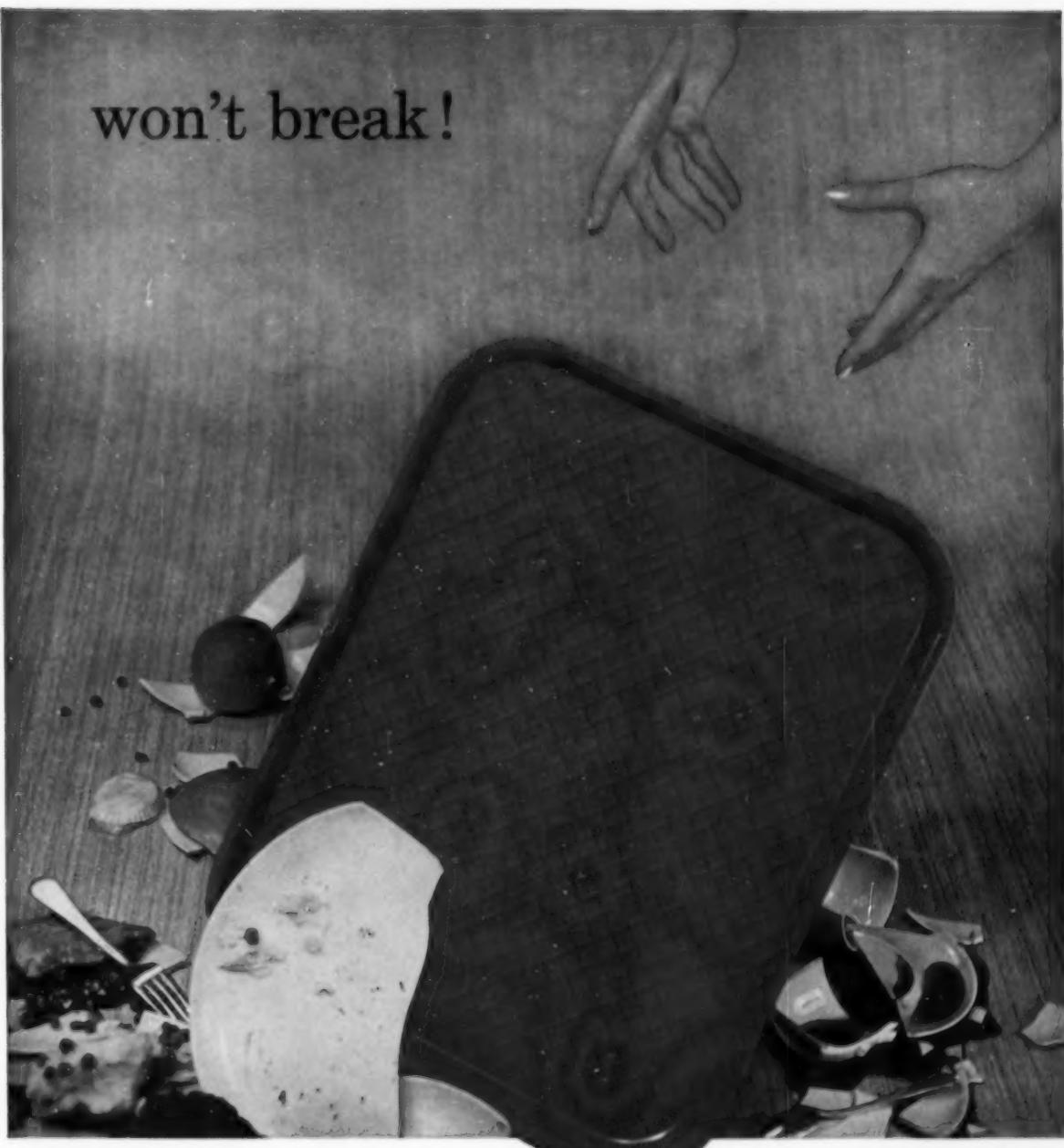
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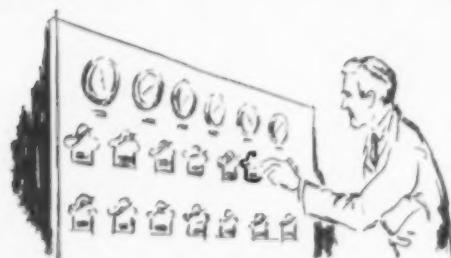
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